

The ATHLETIC JOURNAL

VOLUME IX

NUMBER 3

NOVEMBER, 1928

How to Handle a Team the Day
of the Big Game

W. W. Roper

College Football Offense. Fifty-
seven Formations as Used by
Leading College Teams Diagrammed
and Explained

John L. Griffith

Fundamentals of the Offense (Foot-
ball)

C. M. Price

Team Offense (Basketball)

Dr. H. C. Carlson

Editorials

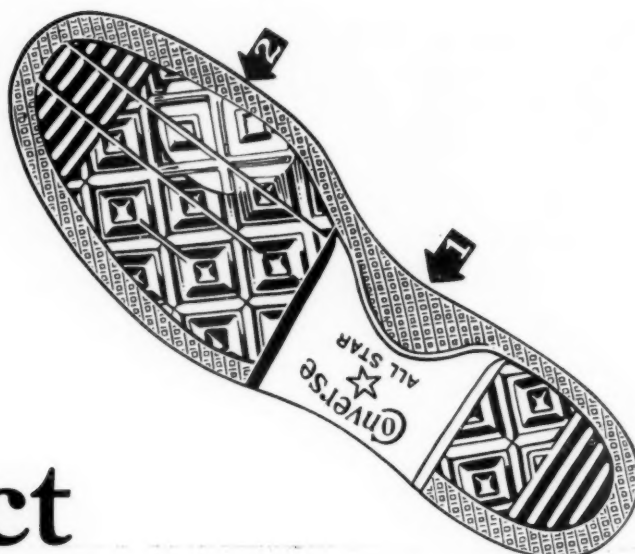
Athletic Budgets in Universities,
Colleges, Private Schools and Pub-
lic High Schools

Lloyd Holsinger

James M. L. Cooley

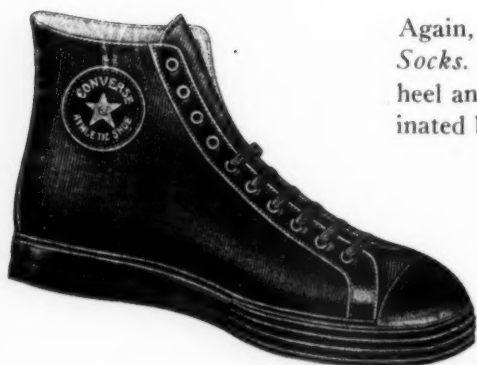


Here is *the* perfect basketball shoe sole

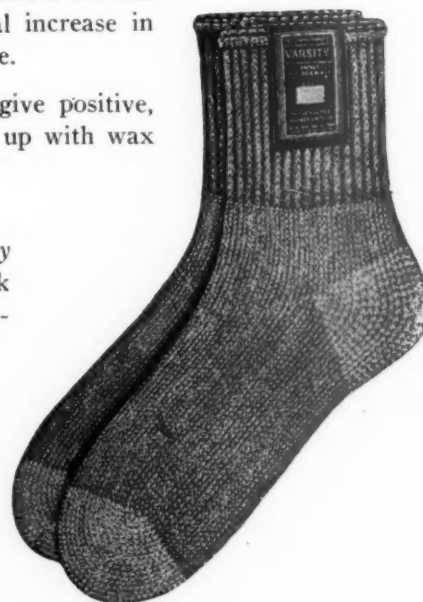


And here is why:

1. An orthopedic shank which adds to the comfort and efficiency of the well known Converse Cushion Arch.
2. A specially designed corrugated edge which bites into the floor and materially increases the traction.
3. A "pivot button" which puts extra thickness directly under the ball of the foot where the wear comes—without material increase in weight. This would be impossible on *any* other type of shoe.
4. Scientifically designed diamond suction cups which give positive, unfailing traction even on dirty floors. Will not fill up with wax or dust.



Again, we urge every coach to adopt *Varsity Socks*. Made of fine combed wool. Double thick heel and toe. Many foot infections will be eliminated by the use of the Varsity.



Have you asked
for your copy of the
1928 Converse Basketball
Year Book?

Converse

BASKETBALL SHOES

CONVERSE RUBBER SHOE CO.
Chicago, 3932 So. Lincoln St.

Factory and General Offices—Malden, Mass.
Minneapolis, 646 Stinson Blvd.

Interesting Developments

IN this JOURNAL an attempt has been made to give an idea of the different types of football being played in different sections of the country. It is assumed that the up-to-date coach desires to know what methods others are using.

The coaches are a versatile lot of men who are continually trying experiments. It has been customary for several years to give space in the December JOURNAL to accounts of developments of all sorts. If those who have had success with certain innovations will see that these developments are described and sent to the JOURNAL office this magazine will take pleasure in passing the information on to the other coaches.

Each year a crop of new football stories develop. Many funny things happen in practice, in the dressing rooms and in the games that do not reach the notice of the public. Some of the finest spontaneous humor of the day is connected with school and college athletics. The JOURNAL is prepared to pay \$5 for each humorous story relating to some phase of athletics which is accepted and used in these columns. After the football season ends there will be many of these incidents told at the football banquets. If you know a good football story send it in. Football is not all hard work but rather for the majority of players it is a lot of fun. In later days the players recall with pleasure the humorous incidents that occurred. Let's have some of these stories in the December JOURNAL.

Changes of Address

ON the first page of the ATHLETIC JOURNAL under the contents column has appeared for years the following notice:

"Request for change of address must reach us thirty days before the date of issue with which it is to take effect. Duplicate copies cannot be sent to replace those undelivered through failure to send advance notice."

This year the subscription department made a special effort to reach every subscriber. On September first under first class postage there was sent to all subscribers a notice which read: "Your September JOURNAL has been mailed to the address on this envelope." None of these letters were returned to our office and yet six weeks after this mailing, the department receives letters, "I have failed to receive my September and October issues. It may be because of my change of address. Please send duplicate copies." Another subscriber sent us a change of address giving us a street number but the name of a city other than the one in which he lived. Four JOURNALS were sent to this reader and returned to us and several notices sent us from postal authorities and we ourselves had written several letters.

The wrappers are checked before they leave our office. In the future every complaint will be traced by postal authorities. If you don't get your copy and you know you didn't give us your change of address or that you made a mistake in the address, be a good sport and don't ask for duplicate copies gratis.

The ATHLETIC JOURNAL

VOL. IX

NOVEMBER, 1928

No. 3

CONTENTS

How to Handle a Team the Day of the Big Game 3

W. W. Roper

College Football Offense. Fifty-seven Formations as Used by Leading College Teams Diagramed and Explained..... 5

Fundamentals of the Offense (Football) 14

C. M. Price

Team Offense (Basketball) 15

Dr. H. C. Carlson

Editorials 18

Athletic Budgets in Universities, Colleges, Private Schools and Public High Schools.. 20

*Lloyd Holsinger
James M. L. Cooley*

Psychological vs. Tactical Fundamentals..... 36

Coleman R. Griffith, Ph. D.

Lessons from the Basketball Tournaments of 1927-1928 40

George Keogan

Request for change of address must reach us thirty days before the date of issue with which it is to take effect. Duplicate copies cannot be sent to replace those undelivered through failure to send advance notice.

Published monthly except July and August by the ATHLETIC JOURNAL PUBLISHING COMPANY, 6858 Glenwood Ave., Chicago, Ill.

Subscription, \$1.50 per year; Canada, \$1.75; foreign, \$2.00
Single Copies 25c

Copyright, 1928, the Athletic Journal Publishing Company

Entered as second-class matter August 14, 1925, at the Post-office at Chicago, Illinois, under the Act of March 3, 1879

An Open Letter to the World's Greatest Basket Ball Conference

NEW YORK

SAN FRANCISCO

CABLE ADDRESS-WILWESTCO CODES-BENTLEY'S-LIEBES
WESTERN UNION-A.B.C. 5TH EDITION IMPROVED-A.B.C. 5TH EDITION

Wilson
ATHLETIC EQUIPMENT

Wilson-Western Sporting Goods Co.
ATHLETIC AND SPORT EQUIPMENT
EXECUTIVE OFFICES
2087 POWELL AVENUE
CHICAGO

To Coaches and Officials of the world's greatest basketball conference.

Gentlemen:

Wilson wishes to express its appreciation for the recognition by yourselves of Wilson's earnest endeavor to produce the finest basketball possible for your game.

Wilson basketballs have been chosen (upon the basis of quality alone) for official play in nearly every basketball tournament of note. This response is tangible proof that you consider Wilson basketballs to be superior. Superior because of their great liveliness - because their double lining feature keeps them perfectly round under the stress of heavy play - superior because their valve type inflation (which was first instituted by Wilson) has brought new and higher standards to the game - and because other Wilson features, such as the hidden lace, sunken lace, etc., are all productive of better play. You undoubtedly, also considered the long usefulness of the Wilson basketball which results in greater economy.

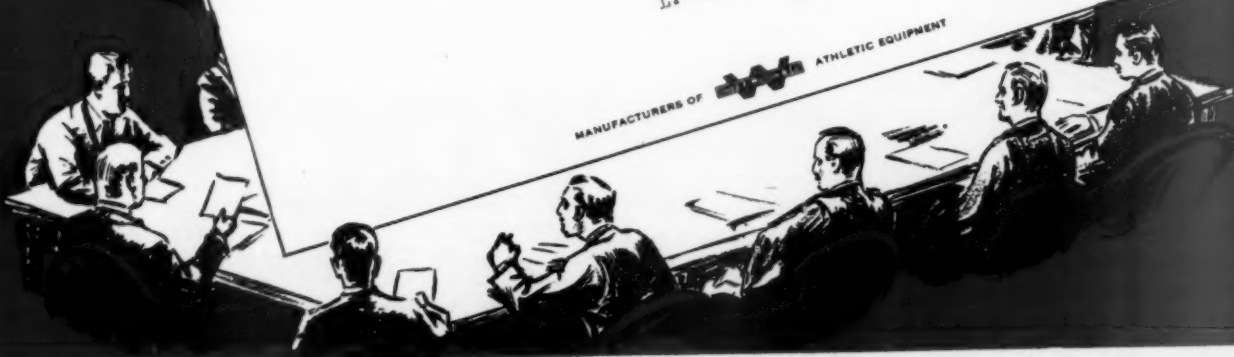
One resultant of your decisions is that three times as many Wilson basketballs have been sold as in any previous season. Words of praise are gratifying, but actual acceptance such as this is conclusive proof of your endorsement.

Coaches and Officials who at any time during the past season have "sat in" on the selection of a basketball for official tournament play, constituted the world's greatest basketball conference. To each one of you, Wilson expresses its gratitude and promises that it will ever strive to give you superior playing equipment.

Very truly yours,
WILSON-WESTERN SPORTING GOODS CO.

L. B. Icely
L. B. Icely Pres.

MANUFACTURERS OF  ATHLETIC EQUIPMENT



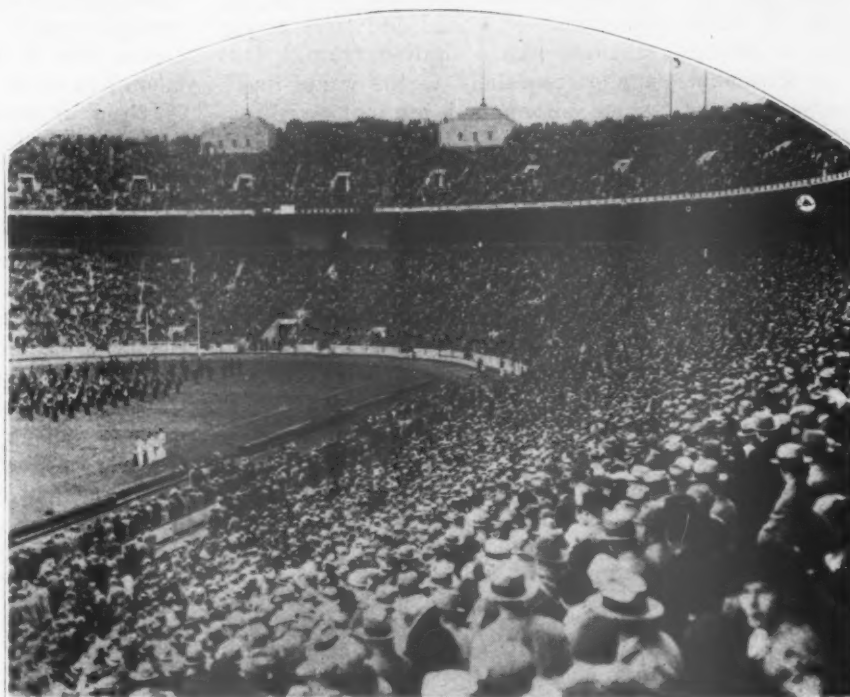
The ATHLETIC JOURNAL

Nation-Wide Amateur Athletics

CHICAGO, ILLINOIS

Volume Nine
No. Three

November,
1928



P&A

*The Ohio State Stadium
The Michigan-Ohio Game*

How to Handle a Team the Day of the Big Game

By W. W. Roper

I BELIEVE a good many games are lost in or near the dressing-rooms before the play begins, and it profits a coach very little to gain all the season and lose his championship merely for want of a little forethought about what seems a wholly unimportant detail.

For instance, very naturally, as the game draws near, everybody who knows any member of the team or coaching staff becomes possessed of an overpowering desire to interview him. I suppose it is inevitable that friends who have come a long way to see the game, or who merely want to prove to themselves and their com-

panions that they really do know somebody on the inside, should forget that by intruding at this time they are doing their level best to beat their team, but whatever the reason, it is decidedly a part of winning football to see that the men are absolutely protected against this thoughtless distraction.

It is really an essential thing to get a man on guard at the door of the quarters who is not only without human sympathies but has the authority necessary to hold his ground against old players and former captains, even, who seem to forget how they hated these visitations in their

own day, and are bent on imparting some of their vintage ideas to the coach and team at the last moment.

Besides being absolutely sheltered from distractions, the team should have a brisk warming up on the field, and then gather for a final talk with the coach, in which the old line of hysterical adjurations have no place whatever. The fighting spirit grows best in a quiet atmosphere of earnestness, and will profit from being permitted to suggest itself as I have already tried to point out. This last conference cannot conclude any new football teaching, although I remember cases in which it was used

for exactly that purpose. With me this last talk is as carefully considered beforehand as if I were making a set address. An extemporized burst of rhetoric will not do. Generally speaking, it is a stimulus rather than an admonition that I aim for, and every man will have his own way of handling the problem, anyway. I know that some coaches proceed on the assumption that noise has its value, and perhaps it has. I know that others make a practice of calling in old-time heroes or professional graduates given to spread-eagle eloquence to use these final minutes. I am not arguing against them. I merely describe my own idea of the way to give a team the winning feel.

Unconsciously every player takes his cue from the coach in these trying minutes. It is not enough for the coach to have his own nerves under control and to show a kind of cool calmness, which is the best index of confidence, but he must also know, and show that he knows, exactly what is to be done by everybody at every minute. It is very easy to let some minor annoyance disturb one's equanimity, and the ease with which this can happen to the coach is an excellent proof of the harder tension on the men. Somebody is perfectly certain to have shirked his duty somewhere and there is always a mass of trivial things left undone or done wrong by rubbers and other assistants. I remember seeing one coach, who had held himself beautifully in check until a few moments before the opening whistle, suddenly explode in a frothing rage because one of the footballs was insufficiently inflated. And at game after game I have watched something of this sort happen, until for myself I am on very

vigilant guard against any provocation.

A team which sees its leader fly off the handle over a missing blanket or a broken shoe-lace cannot be blamed for showing a certain uneasiness itself.

The best way of avoiding these seemingly trivial dangers is to know in advance what one is going to say and do during every minute. I map out the time well ahead and stick to my schedule like a limited train. This applies especially to the game itself, when, although I am not in direct charge of play on the field, I am still vitally involved. I know and write down exactly how I am going to make substitutions and I think this over about as carefully as if it were our most important play. It is not very long since I watched a championship thrown away by a mere confusion in a single substitution, and I am not likely to forget it for a long time to come. I also believe it is good policy to let each prospective substitute know in advance which man he will replace so that he may keep a closer watch on that particular player and his opponent, and go in, when he does go, better equipped than the first choice could be, by knowing how the opponent behaves on the field.

In line with this same plan, I carefully prearrange the seating order of the substitutes, so that those who play one position will be grouped together and under instructions to watch their particular predecessors rather than the general play. I always keep the substitute quarter-backs beside me and discuss with them as the play proceeds the merit or defect of strategy and tactics as

exhibited by the first-string man.

I have been writing throughout rather from the point of view of a coach who has assistants and need not attend in person to every part of his work. Of course, there are instances by the hundred in which one man has to do all the coaching without any help at all, and his job becomes particularly difficult when he faces his championship game. No one man can possibly watch the individual play of eleven men at the same time closely enough to know when any one of them is tired or weakening or hurt, nor can one man criticize that individual play intelligently later on.

During the first half I believe that the coach's job is chiefly to observe, through his own eyes and others', and not to meddle more than he must with the leadership of the eleven on the field. If he has not managed to teach his quarter-back and captain to think for themselves, his team will be very apt to be beaten before he can wig-wag orders to them from the lines, and will deserve it, too. Such intervention as may properly fall to the coach's part concerns rather the relief of wearying players and the choice of men to replace them, especially since the adoption of the rules allowing a player to leave the game and later return to it, which in themselves open up a very considerable field for side-line strategy which is often wholly neglected. A substitute going out on the field must always be warned again about reporting to the officials and avoiding speech with the other players until after a play has been made. Even so, there will be enough instances of forgetfulness to satisfy anybody.

One thing that a coach can and should do is to hold his own stopwatch, or, better still, have one held for him by somebody close by who is competent to do it, as not everybody is. Knowing exactly how the time stands plays a heavy part in side-line strategy, especially in these days of



P and A

quarter periods and the possibility of replacing a withdrawn player.

The fifteen-minute interval between the halves is pure gold for the coach who knows how to use it and a time of trouble and defeat for the man who has failed to realize its possibilities in each direction. All the trials of the preliminary suspense are multiplied here. For every intruder who tries to break in before the game, there will be three at the door between the halves, and the man who would be

merely disorderly in the first instance is apt to create a riot now. The old player has smelled blood and powder during the first half, win or lose, and there is no stopping him once he gets past the gate. Bedlam is peaceful compared to the dressing-rooms if the door is not double-barred and triple-guarded. The small boy and the merely inquisitive spectator, reinforced by amateur Napoleons, each with an unstoppable play, and the small army of throat-itching re-

vivalists, all gather hungrily at the gate, and it takes not only watchful waiting and armed neutrality, but a downright rupture of diplomatic relations to avoid their inrush.

For five minutes after the whistle, my men are guaranteed absolute and undisturbed rest and quiet. Not one man gets near them except the trainer, and not even I intrude on that interval. However good their condition, the strain on the nerves is

(Continued on page 46)

College Football Offense

Formations used by leading college teams in games this fall are here outlined

By John L. Griffith

IT is interesting to note the trend in offensive and defensive football each season. Since football has not become standardized like baseball there is still a great variety of ideas regarding the best methods of attack and defense. In recent years there has been a more marked tendency toward the use of similar formations on offense by the coaches of the country than formerly. One of the best known football coaches has suggested that this is due to the fact that the ATHLETIC JOURNAL each year outlines the offensive tactics employed by the coaches in the different sections of the country and further because the coaches have in large numbers attended the various coaching schools.

Last year general use of the double wing-back offensive with a man in

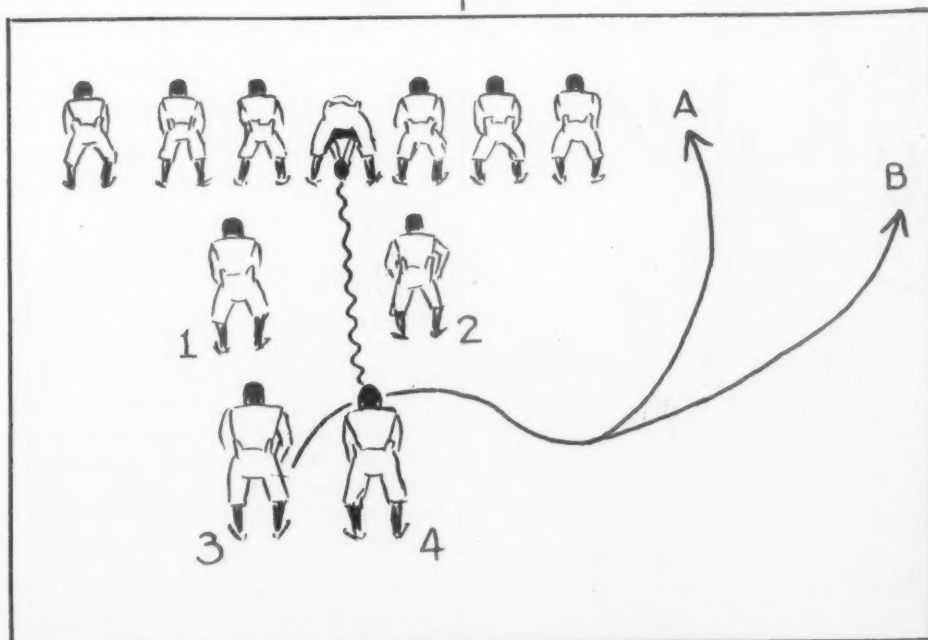
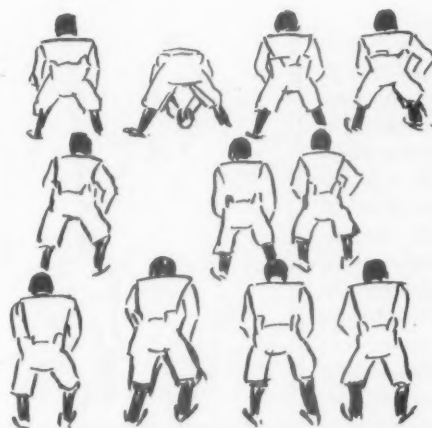


Diagram 1

Diagram 2

motion, spinner and reverse plays was noticeable. This year the huddle, which has been so commonly used for a number of years, in which the men gathered behind the line in a circle when the quarter-back called the signals, apparently is losing in popularity. In place of it, however, is developing a different form of huddle in which the men take positions on or near the scrimmage line and then turn toward the quarter-back or gather around him and then shift to their secondary positions. The man in motion from one formation or another has been in evidence in the games this fall. This man either takes the ball from center for a run or a pass, or heads the interference on off-tackle or

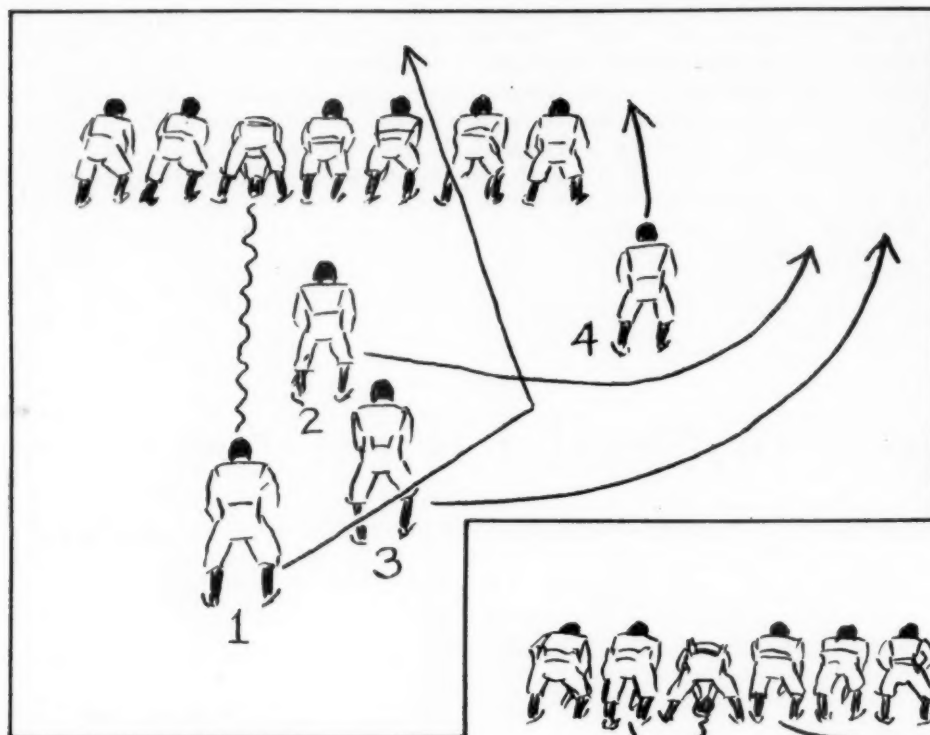
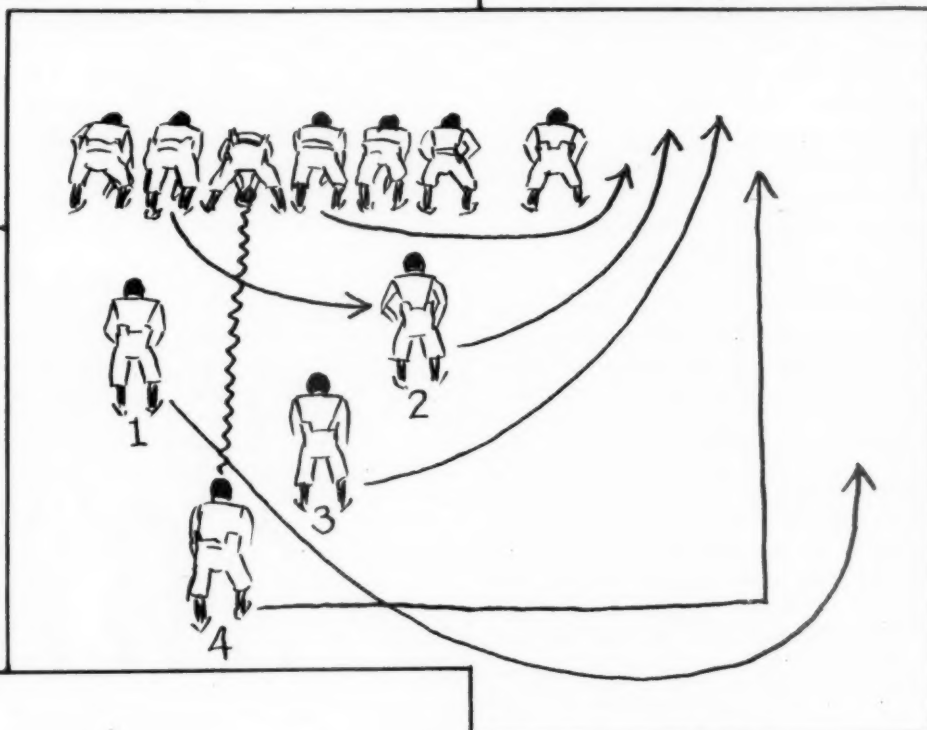
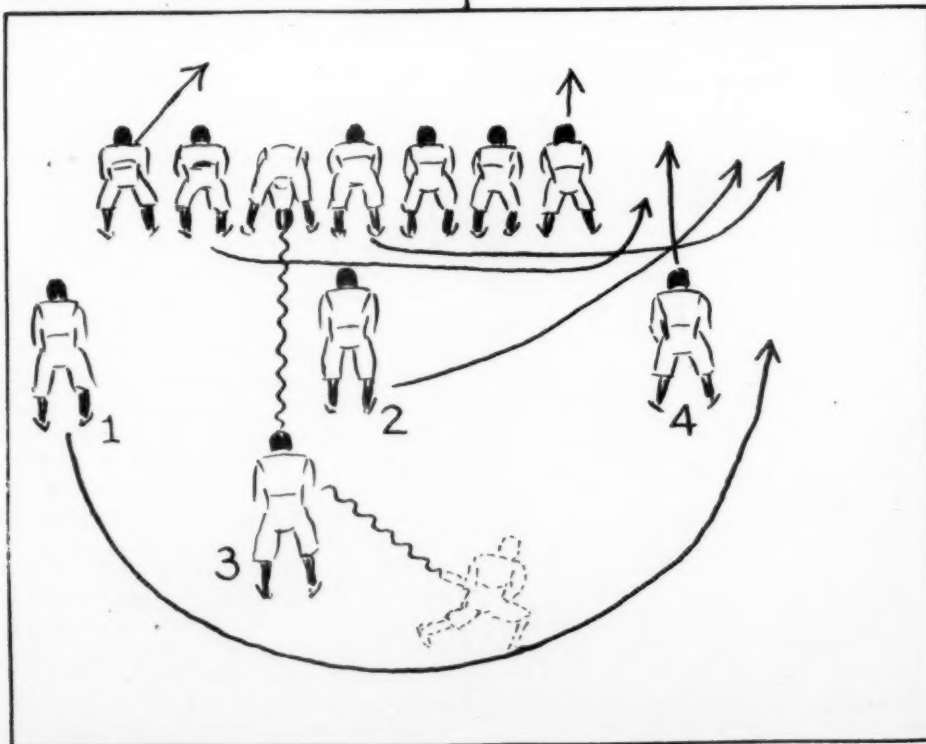


Diagram 4

end runs, or receives a backward or a forward pass. Regarding the backward pass, although several prominent coaches have used formations with a backward pass threat, it has not been used extensively. The new rule regarding the fumbled punt has resulted in more attempts on the part of the defense to catch and run back punts. Since this is one of the most spectacular plays in football this will improve the game.

While the coaches are building their defense to meet special offensive

Diagram 3
Diagram 5, left

strength on the part of their opponents, the basic formation on defense seems to be the seven man line with the center playing loose on occasions and with a spearhead formation in the backfield.

Chicago

Mr. A. A. Stagg, who has won far more than his share of football games and who has initiated as many innovations as, if not more than, any other coach, plans his attack after carefully studying the type of men he will have to use in his offensive plays. A few years ago he won consistently with a driving attack when he had a good line and a fine set of line plungers. Last year and this year he has devel-

oped formations from which his men may easily run or pass.

The box formation shown in Diagram I is one that Chicago has used in its early games. Sometimes No. 1 or No. 2 start in motion backward before the ball is snapped, and sometimes No. 3 or No. 4, as shown in this diagram, are in motion as indicated. If No. 3 crosses in front of No. 4, he may then head the interference for an off-tackle run or a cut-back, or he may receive a forward pass at B or in the flat zone, or a backward pass instead. No. 3 or No. 4 as well as No. 1 or No. 2 are used for bucks.

Ohio

Jack Wilce is another coach who refuses to follow any set system of offense in football, although he has been very successful throughout the

years that he has coached at Ohio State University in following certain principles of offense. His teams show something new each year.

This year he has abandoned the old huddle formation for the plan as outlined in Diagram II. Four line men step back a yard or two from the ball, three other line men take positions very close to the first line, and the four backs are in the third line in this preliminary shift formation. It is possible from this formation to unbalance the line on either side of center and to throw the backs into any position desired. So far this season the team has quite commonly shifted into the position shown in Diagram III. From this formation one may start in motion before the ball is



Diagram 6

double wing-back offense as outlined in Diagram V. The play shown in this diagram, wherein No. 3 takes the ball from center and hands it back to No. 1 for a wide end run, is very effective with a number of men leading the interference.

Iowa State College

Iowa State College, coached by Noel Workman, the old Ohio State back, has employed formations as shown in the accompanying diagrams. The first one as outlined in Diagram VI is their standard formation and consists of a

Diagram 7
Diagram 8, right

passed and either lead the interference, receive a forward pass in the flat zone or take a backward pass off to the side. Being blessed with a kicker who can get his kicks away quickly from a position close to the line this formation is used for kicking, passing and running as well as for line plunging.

Northwestern

Dick Hanley, coaching for his second year at Northwestern, sometimes makes use of the huddle but more generally has his team lined up with an unbalanced line and with the formation outlined in Diagram IV. From this formation criss-crosses or reverses, passes, runs and bucks are executed.

For variety Northwestern uses a





Diagram 9

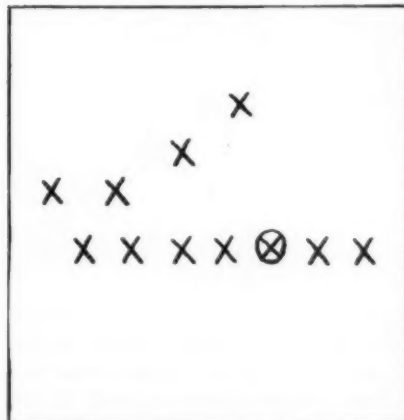


Diagram 10

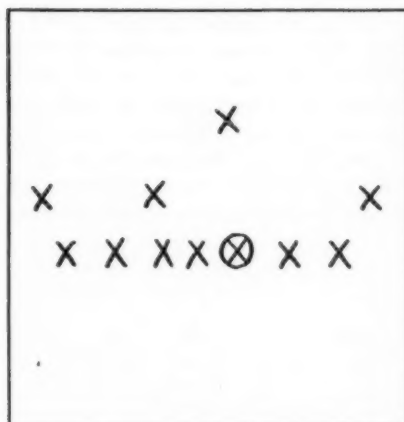


Diagram 11

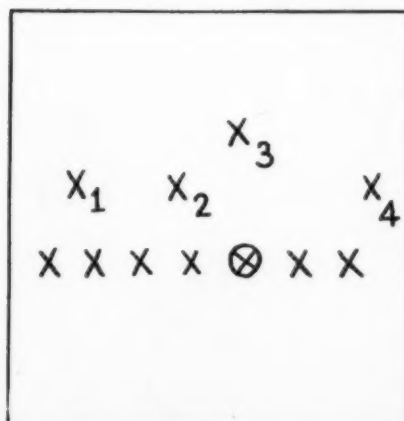


Diagram 12

nine man line with the two half-backs on the line instead of the ends. This is a very effective formation for a bucking game since nine men are matched against five defensive men in the line. For variety the two backs shift back a yard for runs and passes.

Diagram VII illustrates the Ames punt formation. The three rear backs are in the standard punt formation with the quarter-back under the center. From this formation this team starts hidden ball, spinners and sneak plays.

Nebraska

The University of Nebraska team, which is again coached by Ernest Berg, who formerly was assistant to Zuppke at Illinois and who learned his football at Washburn College as a player, consists of a powerful line with a number of excellent driving backs. The Nebraska shift starts from the line-up as shown in Diagram VIII, from which position the players move to the formation shown in Diagram IX. It is to be noted that in the original formation the guards and ends are behind the scrimmage line. When they shift, the end on the long side moves up onto the line outside of tackle and the two guards between the center and the tackle. The end on the short side goes into the line between center and tackle, leaving the tackle on the end of the line. This makes it possible to use a fast end in the interference.

The backfield shifts into a tandem formation from which plays off tackle, through the line and to the short side are executed.

Marquette

Marquette University has been using formations as shown in Diagrams X and XI. From the first formation, off-tackle plays and wide end-runs are effective. From the double wing-back formation spinner plays are used with either the short side back or the lead back and sometimes the full-back handling the ball.

Kansas

The University of Kansas team coached this year for the first time by Bill Hargiss has so far adhered pretty closely to the formation as shown in Diagram XII.

Notre Dame

Knute Rockne for a number of years has not to any great extent shifted his line. However, he has perfected the backfield shift. When he wishes to start a play from an unbalanced line, a man is moved prior to the shifting of the backfield men.

Diagram XIII shows Notre Dame's standard formation before the shift. Sometimes a quick plunge by one of the half-backs is used from this primary formation as indicated in Dia-

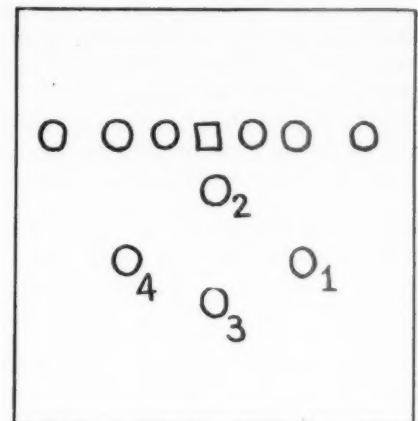


Diagram 13

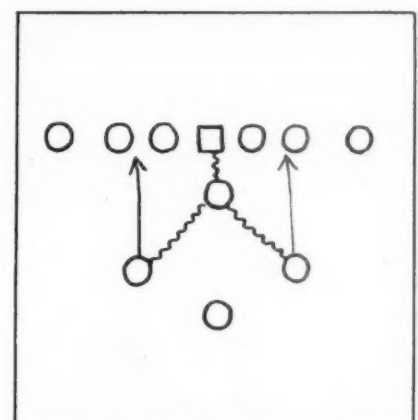


Diagram 14

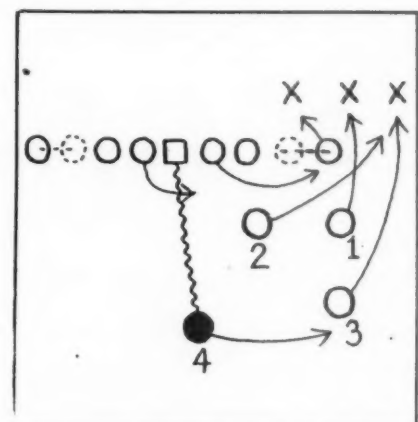


Diagram 15

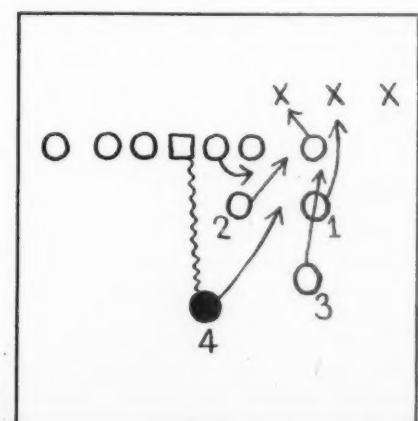


Diagram 16

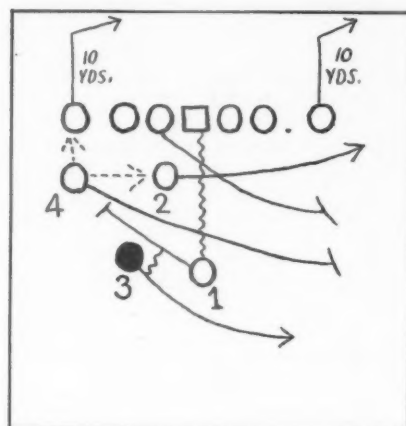


Diagram 17

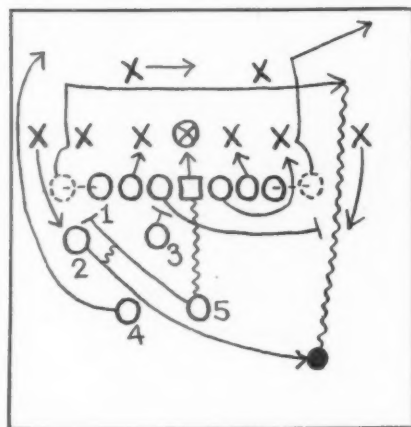


Diagram 18

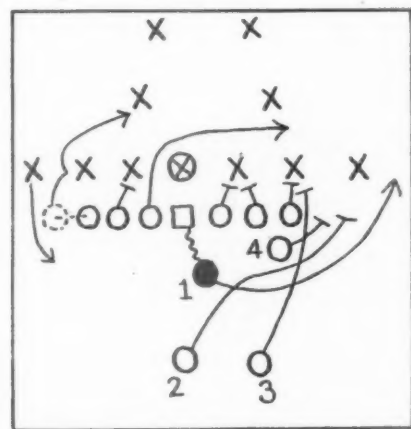


Diagram 19

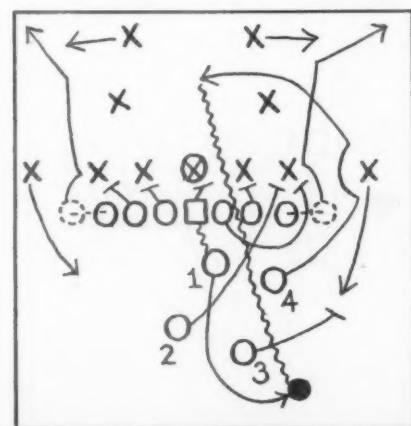


Diagram 20

gram XIV. When a shift is executed with the strength on the right side, the men line up as in Diagram XV, the right end moves out so that he is outside of the defensive guard and the left end usually moves in close to his tackle. The No. 1 back and his guard block the opposing tackle and the No. 3 and No. 2 backs take the opposing end. The left guard sometimes comes out of the line in the interference and the other line men cross check.

For the off-tackle play, the right end takes the defensive guard and the 1, 2 and 3 backs turn the defensive left tackle in or out, as the case may be. The right guard also comes out of the line for interference. Diagram XVI.

The play which Notre Dame used in scoring a touchdown on the Navy, October 13th, is the one outlined in Diagram XVII. The ball is passed to number 1 back who also starts to the left, hands it to number 3, who runs to the right and later passes. The number 2 back comes in back of the line and is usually followed by number 4. The left guard and the number 4 back act as protectors for the passer. When the number 4 back does not protect the passer he follows the end down the field. The ends go down the field about ten yards and then cut for the pass.

Purdue

Purdue teams coached by Jimmie Phelan always play smart football. Purdue this year has used the passing and running attack effectively. The play outlined in Diagram XVIII is a reverse or criss-cross followed by a running forward pass. Number 5 receives the ball from center, starts to the left, criss-crosses to number 2, who runs back to the right and forward passes either to the left end, who has crossed over, or to the right end, who has gone down the field. Number 4 may go down to the left as indicated for a pass on the short side. Number 3 protects as the two guards come out for protection on the passing side.

The quarter-back run is played as shown in Diagram XIX. Numbers 1 and 2 block the opposing left end and left tackle respectively, 4 blocks the end while the left end and left guard break through to cut down the secondary.

A fake buck followed by a short pass is illustrated in Diagram XX. Number 1 gets the ball from center, fakes to give it to 2 for a buck and then runs back and passes to the back No. 4, who has crossed over in front of center, or to the right end, who has gone down and cut to the right. Number 3 protects the passer.

Diagram XXI shows a criss-cross followed by a forward pass. In this

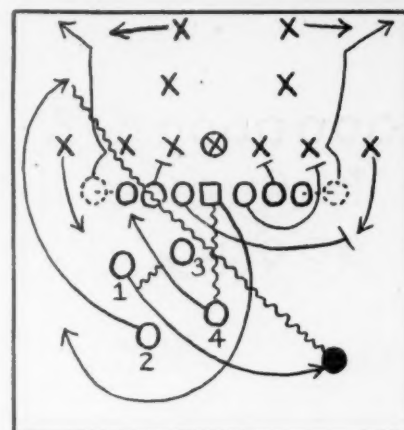


Diagram 21

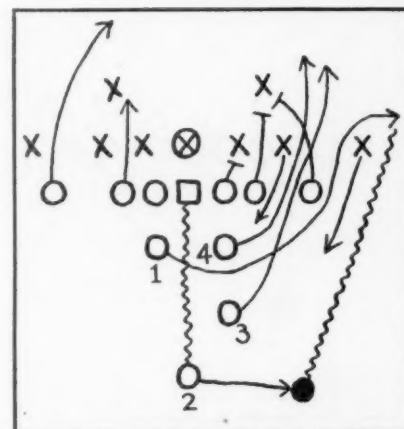


Diagram 22

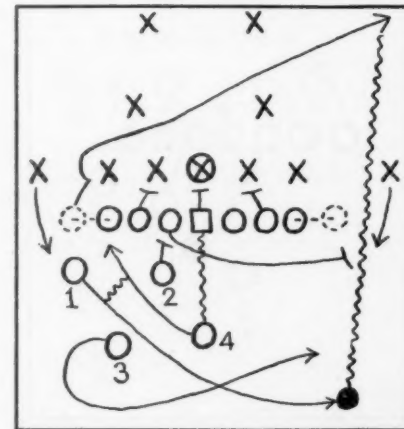


Diagram 23

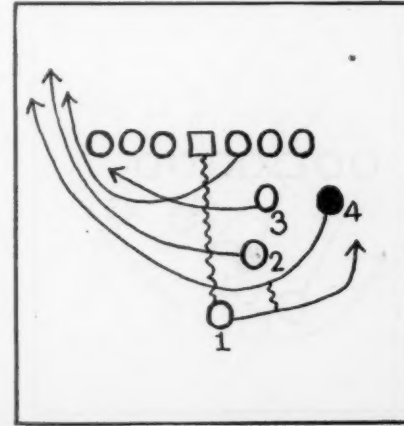


Diagram 24

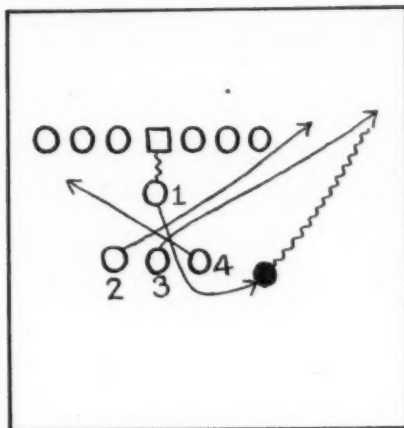


Diagram 25

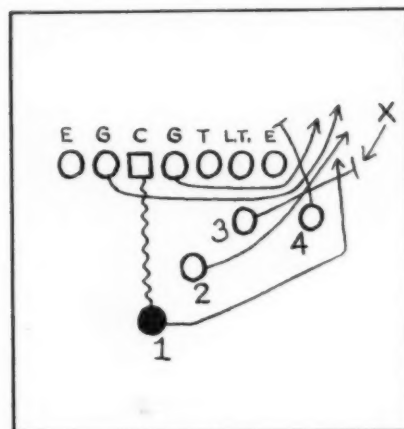


Diagram 26

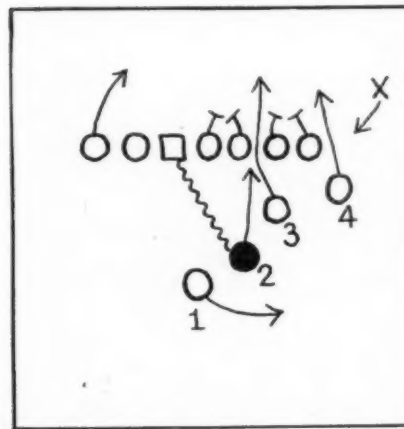


Diagram 27

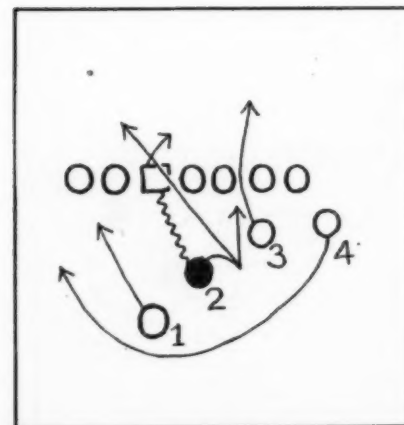


Diagram 28

the ball is snapped back to 4, who starts to the left, which is the strong side, where he criss-crosses with 1, who in turn runs to the right, and then passes to 2 on the left side. The left guard and the right guard protect the passer, and the center comes back out of the line to cover the pass to number 2. Number 2 delays in coming down for the pass.

Diagram XXII illustrates a forward pass from a punt formation. Number 2 gets the ball from the center, runs to the right and passes to 1 in the flat zone. Numbers 3 and 4 go straight down the field for passes or interference. The left end goes down as under a punt.

A criss-cross pass to one of the ends is outlined in Diagram XXIII. This pass is made from a left formation as follows: The ball is snapped to 4, who criss-crosses to 1, who in turn runs to the right, protected by the left guard and the 3 back. The two ends cross over and the right guard comes out of the line to block an opposing left tackle.

Wake Forest

Stanley Cofall, formerly of Notre Dame, now coach at Wake Forest College, is this year using a formation as outlined in Diagram XXIV. In the play here described the ball is passed to 1, who in turn passes to the wing-back 4, who follows the right guard and backs 2 and 3 for a run around the weak side. The wing-back instead of running with the ball may pass to one of the ends. From a normal formation, such as shown in Diagram XXV, 1 receives the ball from center, bluffs a pass to 2 and then to 4 but retains the ball and runs back for a pass to 3, who has started together with 2 at the snap of the ball. The pass is intended to go to the full-back in the flat zone.

Virginia Polytechnic Institute

Virginia Polytechnic Institute, coached this year by Andy Gustafson of Pittsburgh, has been using the formation as shown in Diagram XXVI, a most effective play, as a short end run of the cut-in type. The wing-back 4 blocks the opposing end, and both guards and 2 go through the hole abreast; 1 receives the ball from center, runs to the right and cuts back following his interference.

The full-back buck from this formation is shown in Diagram XXVII. Back 1 fakes to get the ball and runs backward toward his own end line; 2 receives the ball from center and bucks through the hole as shown in the diagram; 3 precedes the runner through the hole, and 4 either helps with the line men or blocks the secondary.

Diagram XXVIII shows a half spinner play on the strong side or over

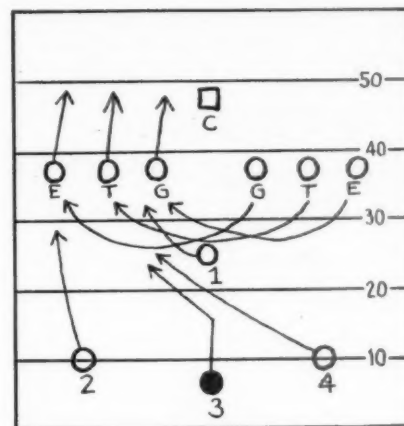


Diagram 29

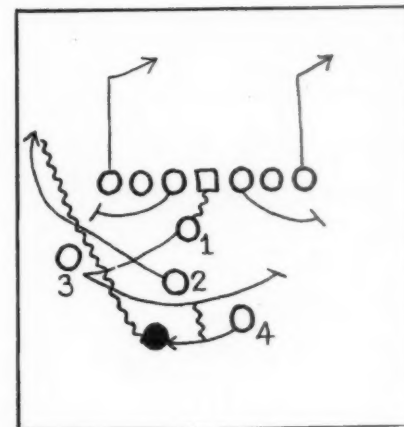


Diagram 30

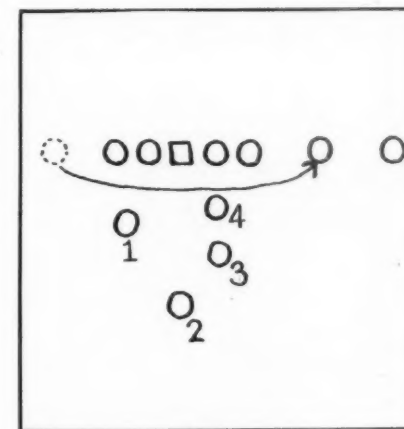


Diagram 31

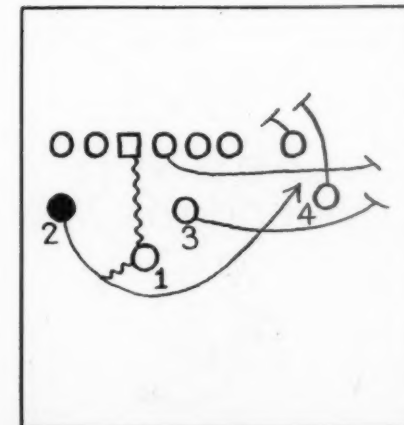


Diagram 32

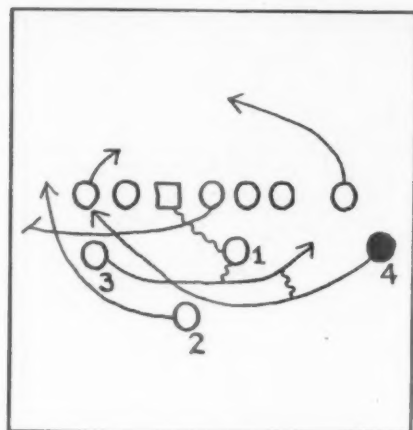


Diagram 33

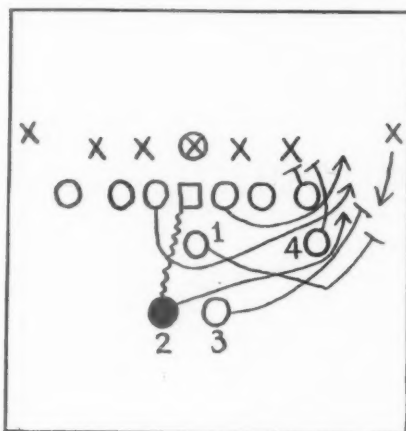


Diagram 34

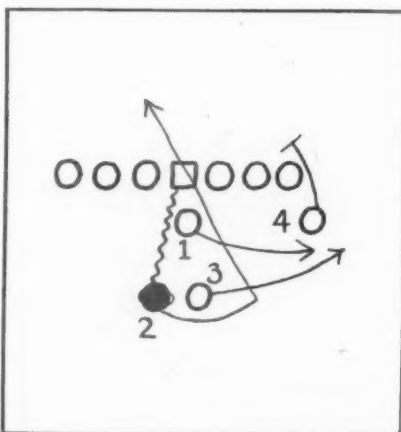


Diagram 35



Diagram 36

center. Sometimes the ball is given to 4 as a check. In this play 1 protects on the weak side, 4 fakes to take the ball from 2, and 3 leads the way for 2 through the line.

Gustafson's defense on the kick-off is illustrated in Diagram XXIX. Back 3 is the fastest runner. The man receiving the kick-off advances either to the left or right side of the field as the case may be. All of the blockers swing toward the side line where the play is directed.

North Carolina State

Gus Tebell, the old Wisconsin football and basketball player, is coaching North Carolina State. He has used the backfield T formation with a shift and also a set tandem formation as well as the formation as illustrated in Diagram XXX. In this play, 1 takes the ball from center, runs to the left and hands it to 3, who in turn passes to 4, who then forward passes to 2 or to one of the ends who have gone down as indicated in the diagram.

From the kick formation as outlined in Diagram XXXI the left end moves over to the right side, and on end runs blocks the opposing tackle. The right end blocks the end. The right guard comes out in the interference. Back 1 carries the ball around the strong side with the other three backs leading the interference. From this same formation the spinner and straight bucks are sometimes used.

Duke University

An old Pittsburgh athlete, Jimmie DeHart, is coaching Duke University. He has been using the double wing-back formation with straight running plays mixed with double and triple pass plays. The double pass is illustrated in Diagram XXXII. Back 1 receives the ball from center and passes to 2 who runs to the strong side. Diagram XXXIII is a triple pass to the weak side. Back 1 receives the ball from center and passes as indicated in the play.

Harvard

Arnold Horween of Harvard has this year used the off-tackle play as shown in Diagram XXXIV. The ends play wide, sometimes five yards out from tackle and sometimes in closer, depending upon the play that is to follow. Harvard has had a back in motion on a great many plays so far this year. He runs parallel to the line and then just previous to the snapping of the ball swerves obliquely toward his own end line. Both guards in the off-tackle play come out in the interference. The runner does not cut back sharply but rather runs in an arc. In this play 1 and 3 block the end, 4 and the right end take the tackle, and 2 gets the ball on a direct pass from center and runs to the right.

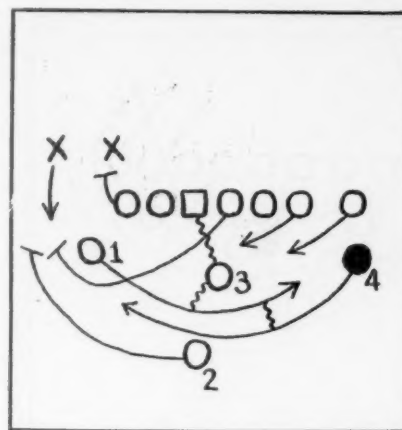


Diagram 37

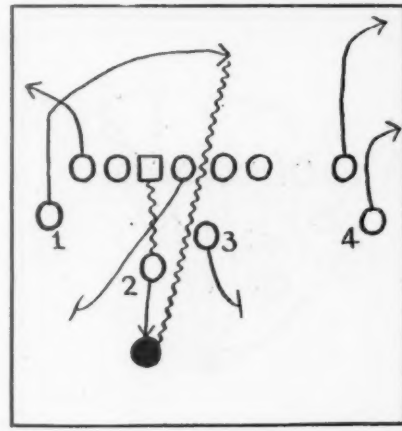


Diagram 38

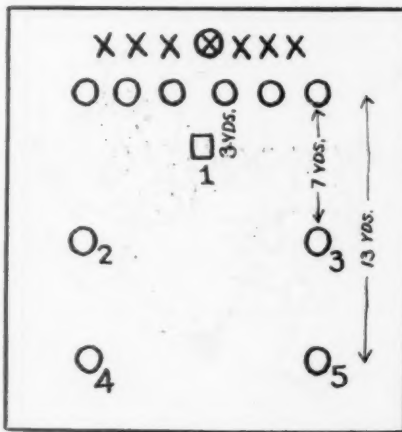


Diagram 39

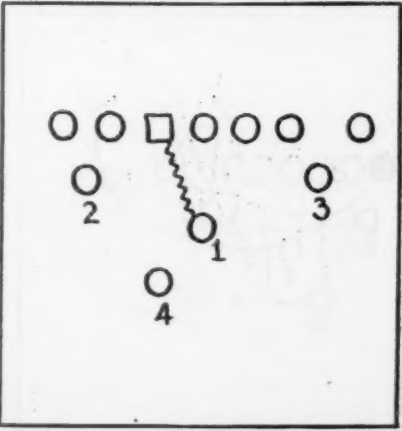


Diagram 40

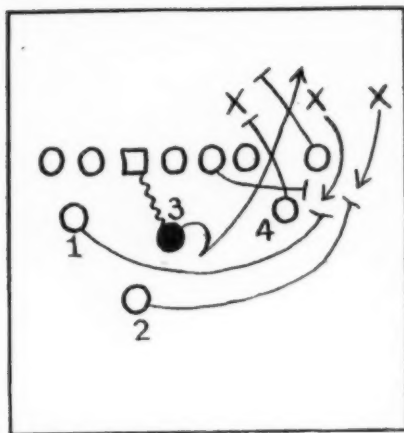


Diagram 41

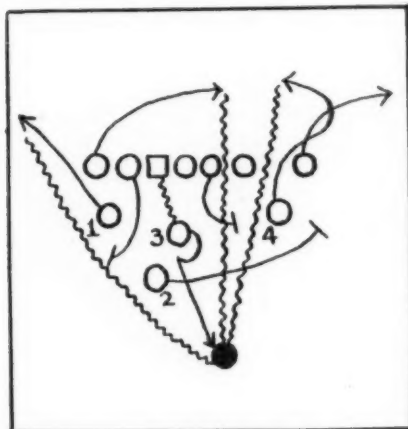


Diagram 42

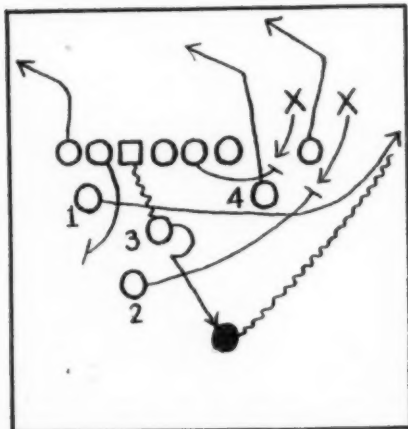


Diagram 43

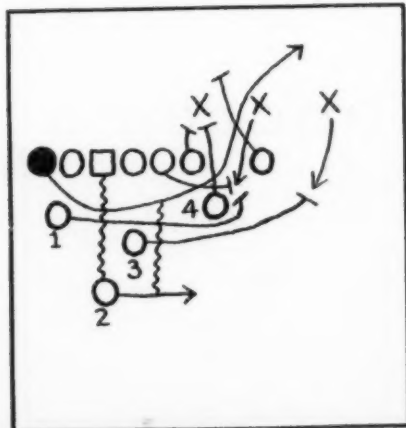


Diagram 44

Georgia Tech

W. A. Alexander, formerly assistant to John W. Heisman, now head coach at Georgia Tech, has started some of his plays from the formation shown in Diagram XXXV. In the play here outlined 1 and 3 run to the right for interference, 4 and the right end block the tackle, and 2, after getting the ball from center, starts to the right and cuts back over center. The quarter-back 1 stands facing his backfield.

Diagram XXXVI is a companion to the cut-back over center. If the center on defense comes out too fast to stop the off-tackle play, the cut-back over center is effective. If he does not come out of the line the off-tackle run still has a fair chance to work. The play starts the same as XXXV but the ball carrier instead of cutting back through the line cuts back off tackle.

Rice Institute

Rice Institute is coached this year by Claude Rothgeb, the old Illinois guard. He has been using both the double wing-back and the punt formation for runs and passes. When using the former the plays usually start with an unbalanced line. The usual double and triple passes and spinner plays are used. Diagram XXXVII shows a triple pass in which 3 takes the ball from center, runs to the left and passes to 1, who runs to the right and passes to 4, who in turn follows his interference to the left.

Diagram XXXVIII illustrates a forward pass from the double wing-back formation. Back 3 and the right guard protect the passer 2, who steps back and passes to one of the wing-backs or one of the ends as shown in the diagram.

Most of the teams in the southwest this fall are passing a great deal and, consequently, the standard defense seems to be that as shown in Diagram XXXIX. The center is usually about three yards back of the line 2 and 3, the half-backs, seven yards back of ends, and 4 and 5, full-back and quarter-back, about thirteen yards back of the line.

University of Texas

Texas, coached by Clyde Littlefield, who is a former Texas star, has been using three offensive formations and, on defense, a six man line with the center and full-back two yards back and between tackle and guard. The half-backs have been playing back about eight yards. Diagram XL shows a double wing-back formation with an unbalanced line in which the wing-backs start from a position inside of end. Number 1 receives the ball from center, fakes to give it to 4 on the half spin and then either plunges through the line or passes to 2 or 3 for outside tackle plays or for

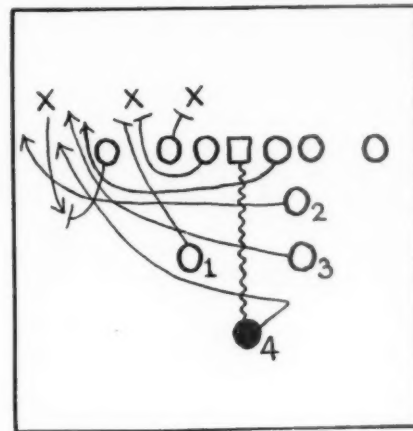


Diagram 45

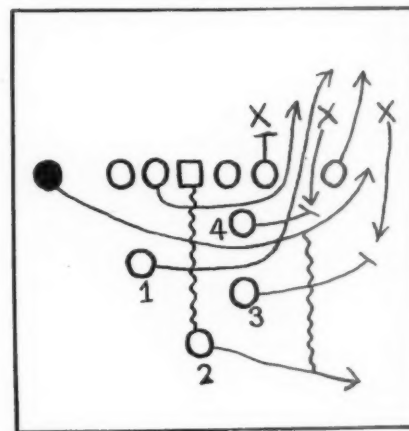


Diagram 46

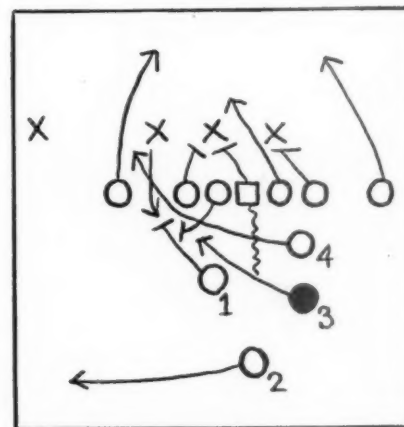


Diagram 47

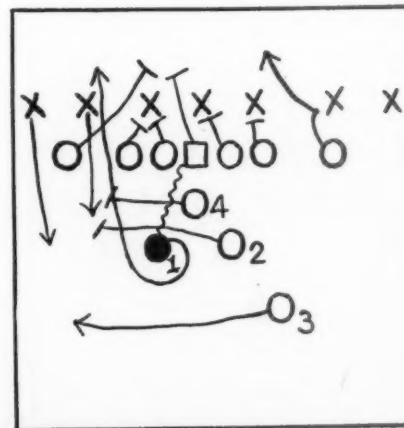


Diagram 48

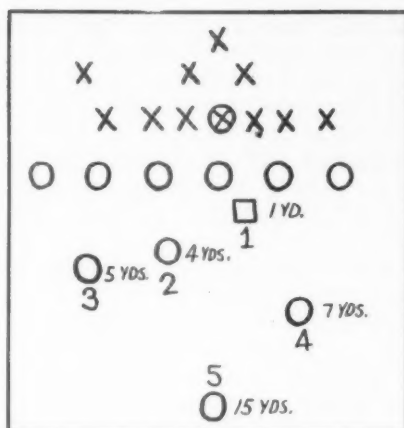


Diagram 49

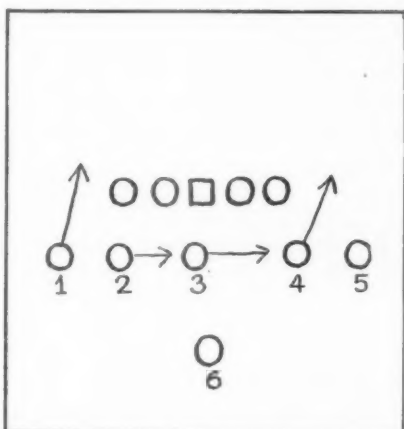


Diagram 50

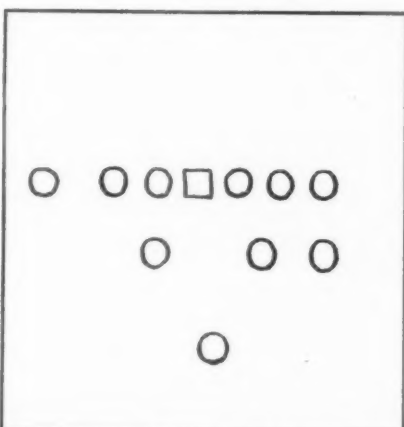


Diagram 51

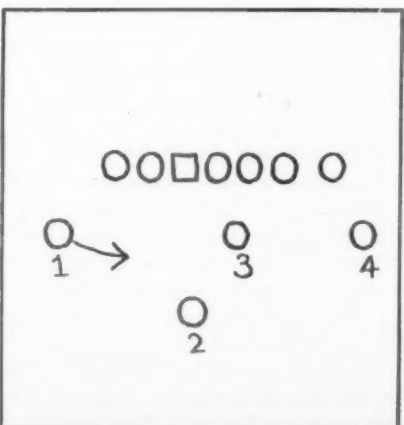


Diagram 52

short forward passes.

Diagram XLI shows a spinner play in which 3 fakes the ball to 2 and then carries it off tackle; 2 takes the left end and 4 blocks the guard. A spinner play with a fake pass followed by a forward pass is shown in Diagram XLII. Back 3 gets the ball from center and then passes to one of the ends or to wing-backs, 4 or 1. Diagram XLIII illustrates a half spinner with a fake pass followed by a forward pass to the right in the flat zone, 1 receiving.

Diagram XLIV is a pass to the end behind the line. Numbers 1, 3 and 4 run to the right for interference and 2, after taking a few steps to the right, forward passes to the left end for a run around the right side.

Texas A. & M.

Dana Bible, the veteran A. & M. coach, has been using this year a modified punt formation. From this he has a varied attack with considerable forward and lateral passing and a driving offensive through the line or off tackle. Diagram XLV shows an off-tackle play on the weak side. Both guards and the other three backs lead the interference for a mass on tackle; 4, the ball carrier, delays to give his interference a chance to get in position by taking a few steps to the right and then turns and cuts back over the left side.

Diagram XLVI illustrates a pass to an end behind the line. Further number 2 receives the ball from center, runs to the right in an oblique direction toward his own end line and then passes to the left end for a run around the right side. The other men perform as shown in the outline.

Diagram XLVII illustrates the man in the kicker's position faking to the left while 3 gets the ball for an off-tackle plunge.

Southern Methodist University

Ray Morrison, the old Vanderbilt quarter-back, has relied consistently on the punt formation and for variety has used a short punt formation with the kicker back and to the right of center, the other three backs on the left side.

Diagram XLVIII illustrates a spinner play inside of tackle with 3 faking to get the ball, 2 and 4 protecting on the left and 1 carrying the ball. From a similar formation Southern Methodist University has used the lateral and short passes as well as a variety of spinner plays.

Diagram XLIX illustrates the defense that Southern Methodist used against the Army. With the six man line 1 played a yard back of the line of defense between the tackle and guard on the right side, 2 lined up four yards back of the left guard, 3

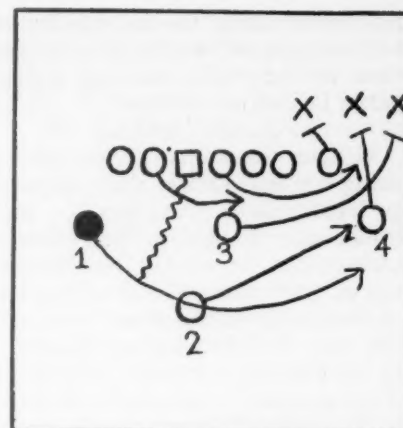


Diagram 53

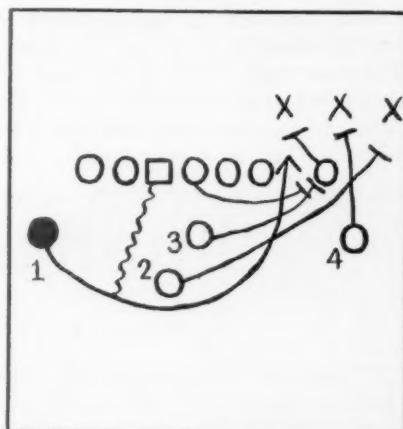


Diagram 54

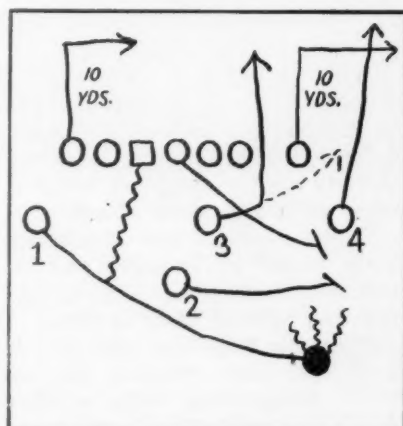


Diagram 55

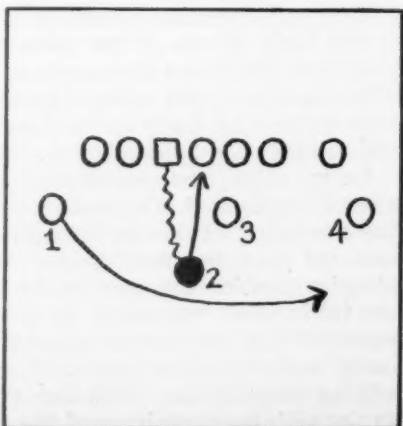


Diagram 56

five yards behind the opening between left end and left tackle, 4 seven yards back on the right side and 5 fifteen yards behind the center.

South Carolina

William Laval has this year been using an interesting shift formation as illustrated in Diagram L. In the preliminary formation the guards and tackles line up on the line with the center, the ends and two of the backs as shown in the diagram. From this the men shift into an unbalanced line to either side, 2 and 4 being the strategic men in the shift. Frequently they shift to a punt formation as shown in Diagram LI.

Navy

Bill Ingram is again using the double wing back offense as shown in Diagram LII. On nearly all plays number 1 starts running to the right, toward his own goal and the ball is passed when this man reaches a cer-

tain point back of center. From this formation the Navy runs, kicks, cross bucks, and executes reverse passes and straight passes.

Diagram LIII shows an end run with 1 getting the ball from center when he is in motion toward his own

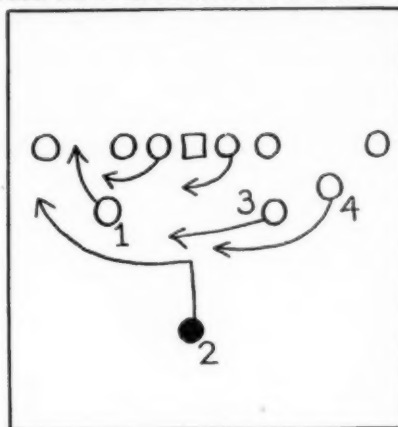


Diagram 57

end line. Back 4 and the right guard take the tackle, 2 and 3 take the opposing end and lead the interference. The left guard also comes out in the interference.

Diagram LIV is an off-tackle play with 1 getting the ball and cutting in sharply off tackle. This play starts the same as Diagram LIII. Numbers 3, 4 and the right guard block the tackle, and 2 blocks the end.

Diagram LV is a pass from 1 to one of the ends or to 3 or 4 as shown.

Diagram LVI illustrates a line buck with 2 carrying the ball after 1 has bluffed at taking the ball from 2.

Diagram LVII is the formation from which the Navy kicks and shows a run to the short side in which 1 blocks the opposing right tackle, 2 guards and 3 and 4 head the interference. The ball carrier runs in as for a buck and then joins his interference.

Fundamentals of the Offense

By C. M. Price

FOOTBALL is a game depending entirely upon teamwork for its success. The problem of developing perfection in the fundamentals of the game is one of the most important confronting any football coach at the start of a season.

Whether his team succeeds or fails depends upon his ability to develop an eleven well versed in the art of defense, with ability to execute cleverly the various plays which go to make up a diversified attack.

Coaches realize how important the early weeks of training are to the success of the team. During this period the hardest work is done. It is during this time that men are developed and plays worked out, everything being done with a view to developing perfection in teamwork as the more important and harder games of the schedule draw near.

Too much attention cannot be given to the basic details of the game, the rudiments which are so important, yet which are easily lost sight of by those who watch the team as it develops and see only the finished product.

Basic plays are continually employed throughout the season. The various types of bucks through the line are used in every game. Only practice enables the men to be successful in their execution. It is then essential that as coaches we get our basic work well done before we start adding many thrills. This time spent varies with the experience of the men.

There are many things that will

make an offensive team successful, but no team is better than its execution of the following four simple rudiments:

- The blocking.
- A good offensive line charge and good checking line.
- Good handling of the ball and fast starting of the backs.
- Following the ball by the line and backs.

We all realize the importance of blocking of a team. It is said that a team is no stronger on defense than the ability of the men to tackle; also, the offensive strength of a team varies with its ability to block. This does not mean the blocking work of the men on the dummy, which requires no headwork but rather the actual variation of game tactics. Many boys have wonderful form but are not good blockers in a game, as they do not vary their methods.

Attention should be given to the all-important work done by the line. In many respects it may be said that the line makes or breaks the football team. The work of the men in the line is seldom appreciated by the spectators.

Developing an offensive line charge is the most important work during the early season training. A fast charging line is necessary to a successful football team. The work of the line requires teamwork and not individual playing. The successful line must work as a unit and with speed. The difference in a winning

and a losing team usually is due to the fact that one line is outplaying the other. It may be only getting the jump on the other line by a fraction of a second.

We cannot get the ball down the field without a backfield. It must be timed and tuned with the line, as we know. A fumbling back is the curse of a football team. Good handling of the ball is at a premium. Backs must also be fast starters to take advantage of a good line.

A good backfield should have four threats.

- A bucking threat.
- End run or flank threat.
- Forward pass threat.
- Kicking threat.

The more of the above four threats that may be incorporated into one back, the more value that back will be to the backfield. At the same time he must be good in his rudiments to help his teammates. We, many times, have a back that gets it into his head he is only a ball carrier. Unless the coach desires this, the back is not likely to aid the backfield or team in the hard games of the season. What we want is a football team, not a group of self-appointed stars.

After the first few weeks of training and the men know their duties in each play well, the fourth rudiment, that is, following the ball, should be drilled into a team. Nearly every man on the offensive is within five to eight yards of the ball when it is snapped for a scrimmage. Then they

should be at least ten to sixteen yards away when it is downed, unless they have some opponent on the ground. A good way to get this into a team is by practice. Let the team line up in scrimmage and call nothing but running plays. The coach may stand with a whistle and the minute the ball is down he blows his whistle. Every man on the offensive team and defensive team stops in his tracks. The coach may then go around and check his men and question them as to why they are not closer to the ball. It may be that some have made a good block and have a man out of play; they are excused, but if a man is doing nothing, then he should be with the ball. This is a very interesting exercise to use once in a while for short scrimmage. It will improve the blocking in the open of the entire team.

A team that is well coached in these rudiments and that has the basic plays well learned along with perfection of the kicking game has a good start. It is then easy to add specialties to your basics for the harder games of the season.

Good kicking is fundamentally the strongest asset a football team can possess. By good kicking I do not mean a good kicker alone, but a good kicker with a team possessing a fast, accurate center and a fast line to cover these kicks. It means that this team can make it very difficult for the opponent to score. It means the casting of the burden of proof upon the opponents.

A team well drilled in kicking can cause the opponents to look at sixty, seventy, or eighty yards of territory to score. The good kicking team can force the inferior kicking team to de-

sert this style of play and depend upon the more hazardous game of continually rushing the ball from scrimmage. More tight games of football are lost through the mistakes, commonly called breaks, of one or the other of the teams, than anything else. The team which makes the mistakes is generally the team on the offense.

Suppose the inferior team is looking at seventy yards to score. It generally requires fifteen or more scrimmages to carry the ball that distance. Just remember that a team has an opportunity to fumble every time it carries the ball. Just remember that the percentage of penalties against the offense to that of the defense is about ten to one. About the only common infraction of the rule the defense will commit will be getting off-

(Continued on page 45)

Team Offense

By Dr. H. C. Carlson

THE offense is the high light in any sport. The common saying that "a good offense is the best defense" holds true in basketball, because to keep possession of the ball is to keep on the offensive and to eliminate any scoring opportunities for the opposition. Another factor is that the development of an offensive supplies the greatest number of thrills in any event; hence the majority of our thoughts are concentrated on our offensive.

In building an offense, it is practically impossible to copy in toto the thought of some one else and get the fullest benefits. The better way is to follow the development of the offense and to grow with this development, remembering always that the most precious possession in basketball is the ball and that this is the most essential part of any offense.

In the early history of basketball, the offense was pretty much of a scramble; a basket was practically an individual effort. Next came a pass to a teammate in a better position to shoot. Then came what we termed a two-man triangle with a pass and then a return pass. Later came the combination of three men, then four and finally five, with different combinations of these different offensives, delayed and smashing, until some feel we have reached the ultimate. But we know full well there will be further development.

The coach must master the details of the basic features in all offensives, because his players must go through

the rough-and-tumble, survival-of-the-fittest game, developing individual ability and courage, and must come finally to know the value of team play, realizing the team's welfare is the welfare of the individual. After all, to recognize the value of team play is to learn one of life's greatest lessons, i.e., "What is worth doing is worth doing well"; for it is infinitely better to execute well a simple system understood by all than to try a complex system only half-known or understood. There is no system that can be executed without the ability to execute the fundamentals, nor is there any system that can rule out hard, conscientious thought and work.

To start with a simple system thoroughly understood by the entire team makes for confidence and creates visions of accomplishments. On the other hand, to teach a complex system that is not understood is to dampen enthusiasm, increase drudgery, and lessen confidence. There is a consequent bringing to the mind the thought of being slave to the work rather than the master of it. Furthermore, the student who starts at the bottom and learns as he goes up becomes the thorough master of his work. This is simply the basic principle of good teaching. Above all, the coach should not attempt to teach anything that his players cannot learn or that he does not know himself.

The first offensive play was that of the individual, which required the mastery of the fundamentals. The next step in the development of the



Dr. H. C. Carlson

offensive was long passes. Even yet this can be practiced with benefit, though the occasions for its use are rare. There is always the chance of some one getting under the basket unguarded. This step was followed by the use of the two-man triangle, which is still widely used. It consists generally of a pass and a fast cut and return to the original passer going into the basket.

In the combination of three men in, or over and around, we have the development of short passes, pivot-and-block, and dribble-in play. Some coaches have developed this combination to a high degree of proficiency in offensive tactics. But more have failed in their attempts, possibly because of poor material or because they did not have a full grasp of the fundamentals. My experience in the use of three men over and around has been to give it a lot of study and thought and if not to use it as an offensive measure, then to evolve other things from it. To me

it shows possibilities of furthering offensives. The man who passes has three points in mind. First, he knows where he is going and can therefore go more efficiently. Second, he will be his own safety man in case of a bad pass, since he is going full speed ahead in the direction of his pass. Third, he is the possible receiver of the return pass.

As a receiver he will have three possibilities: First, practice at least in faking a return pass and then the regular accurate pass to the third member of the triumvirate; Second, a dribbling in and shooting; Third, pivoting and legally blocking for a return pass to the first member of the triumvirate.

The details of straight three men over and around are well known. Often to follow through a pivot, block with the return pass, and then swing the new arrangement back into the original stride may be advisable. The pivoter returning the pass continues around the first man; then the first man gets into position to pass to the third man cutting in front of him. This action puts the second man in proper place for a cut and a pass. In the diagram picturing these plays continuous lines will represent the course of the man; the dots will indicate the progress of the ball; and the dashes will denote dribbles. To know thoroughly the details of the three men in, over and around is to prepare a system of four men in offensive play.

Four Men in, Over and Around

Shifting passes lengthwise of the floor facilitates the use of four men in offensive play, with the man holding the ball entering in as the third man in the triumvirate. Such a position relegates one of the original three men back to No. 4 position. With number four man handling the ball and with two men on his side of the floor to complete the combination, either man may cut first as pre-arranged. If No. 1 man had decided to pass to No. 4 man and cause a new alignment, No. 1 would have gone back into the trailer position, awaiting a back pass and a chance to get into a new trimvirate. This gives an offensive with continuity; the ball and four men are kept in motion for a possible scoring position. This is a plausible offense for ordinary material, and can be used more easily than three men over and around.

Five Men In, Over and Around

If two men are added to the original three, the passer needs to go around two men rather than one. Thus a continuous revolving offense is set up with five men and practically the same conditions. The receiver should

first fake a pass or a return pass. In case he is unable to pass or dribble in, he can return the pass and go around the receiver and one other man. Even though the material may not be high in offensive power, this system is easy to learn; and it gives experience in handling the ball quickly, pivoting and cutting, if the cut from the side of the floor is timed properly.

Three Men Offensive

The regular course of the three man over and around offensive is almost universally known, but to simplify the description it is better to illustrate.

Fig. 1

No. 1 starts the offensive, passes to, and goes around No. 2, to be ready to receive the pass from No. 3.

No. 2 having received the ball from No. 1, passes to and goes around No. 3. No. 2 continues ahead so as to be ready to get the pass from No. 1.

No. 3 having received the pass from No. 2, passes to, and goes around No. 1 who in turn again passes to, and goes around No. 2.

With one man in possession of the ball and two teammates ahead, there may be some question as to which man will cut first. We have eliminated this doubt by having the man with the ball stand on either side of an imaginary line running from basket to basket. This makes him closer to one side line and creates a short side and a long side. In this manner we may have a short side man and a long side man, either of whom may be designated as the man to cut first. In developing the offensive to be described herein, we are using the long man to cut first.

Further modification of three men over and around is to add a fake to return the pass, before carrying on regularly, and could be shown in Figure I, if No. 2 would first fake to return the pass to No. 1 before passing to No. 3. Further then, No. 3 would fake to return the pass to No. 2 before passing regularly to No. 1.

The tendency in this system is for the cutter to start too quickly. This will cause a bunching of offensive players and cut down the collective efficiency. Individually, it allows the defensive man to judge exactly where the offensive man is going to cut. This tendency to cut too quickly may be remedied by the cutter feinting towards his basket before making the cut across the floor. This feint will confuse the defensive man, and will not allow the cut to start until the passer is finishing fake to return pass.

There is a certain rhythm about the passer faking a return pass and the cutter feinting towards his basket. The cutter has thrown his defensive

man off balance, and his cut can be made with less obstruction, better a little late than too soon. To develop this rhythm may seem to require too much work, but the average basketball player has a desire to be foxy and he therefore likes the idea of the fake and feint. The practice must necessarily be slow at first with the coach designating the time of cut, while the fake of passer and feint of cutter is simultaneous.

To practice fake return pass and feint of cutter, as well as passing, handling of the ball, and timing of cut, it is necessary to go slowly at first in the practice of regular over and around.

While No. 1 is faking a pass in the direction of the arrow, No. 2 is feinting a cut in the opposite direction. When the coach shouts to cut, No. 1 brings the ball back toward No. 2—and No. 2 cuts back across the floor in front of No. 1 for the pass. No. 1 crosses the floor back of No. 2.

Fig. 2

While No. 2 is faking to return the pass to No. 1, No. 3 is feinting towards his basket. When the coach shouts for cut, No. 2 brings the ball back from fake, No. 3 stops the sway of the body away and then cuts for the ball in front of No. 2.

The diagram shows No. 3 in the act of faking a return pass while No. 1 is feinting towards his basket. The use of a lead pencil and drawing of each man's work at different stages will clarify Figure II, the mystery of which is more apparent than real.

The modified three man offensive of over and around then presents the three thoughts for the passer: first, knowing where he is going, he can go better; second, he is his own safety man in case he makes a bad pass; and, third, he is the possible receiver of a return pass. The receiver may, first, fake a return pass; second, make a regular pass or dribble in with quick opening; or third, return a pass and go behind his receiver to present the first possibility if the regular three men over and around is stopped.

The Return of Pass After Pivot

When the regular three man offensive is stopped, the first possibility is to pivot and return the pass. In the system presented herewith the pivoter continues around back of the man to whom he made his pass. The pivoter going back of his receiver can continue on to be in position for continuation of regular three man offensive. The receiver of the return pass generally needs to take one or two dribbles to bring the ball back towards the middle of the court in order to pass to the third member of the triumvirate. The third man may

have started to cut for pass before pivot and if so, he can retract his course, taking his opponent with him and thereby making his next cut more efficacious.

In Figure III, No. 2 has pivoted and returned a pass to No. 1 and continued around back to be in position for continuation of regular method.

No. 1 must necessarily dribble to counteract his momentum toward the side line and to bring the ball in toward the middle of the floor in order to pass to No. 3 and continue regular method.

No. 3 has retracted his course and is now ready to cut in the new alignment as presented in Figure IV which allows No. 1 to pass to No. 3. No. 3 then passes to No. 2 and the regular method continues.

In the pivot and return pass No. 2 is automatically between No. 1 and his opponent. If No. 1 dribbles in toward the middle of the floor and is unable to pass to No. 3 or continue in toward the basket, he still can pass to No. 2. This simply reverses No. 1 and No. 2. No. 3 is left only to his feints and watching for his time to cut as shown in Figure V.

This feature is practiced by allowing a man to dribble in toward center and pass to a man on the side line. The man on the side line dribbles in toward center, pivots and passes back to the first man who went to the side line after making his pass. The ball can be passed at any time No. 3 is open, or the dribble can go towards the basket with a man on either side of the floor.

To carry the three man offensive with its variations requires a complete mastery of handling the ball. To make it more practical and facilitate its use it is well to have a fourth man, back in position where he can receive a pass at any time.

Four Man Offensive

Using four men in over and around is to give more elasticity to the team work. If the three man offensive fails, there is an easy way out in passing back to the fourth man. The fourth man stands on either side of the median line, and this position decides the short and the long side men. The man who passes back goes on back and becomes the fourth man. The two men up in front cross sides to confuse the defense, and the man who is on the opposite side of the floor from the ball is the long man and cuts first. The fourth man in receiving the ball may pass or dribble. He may dribble up on the short side or over to the long side, but regardless of what he does, he knows that the long man cuts first.

With the new man in the trium-

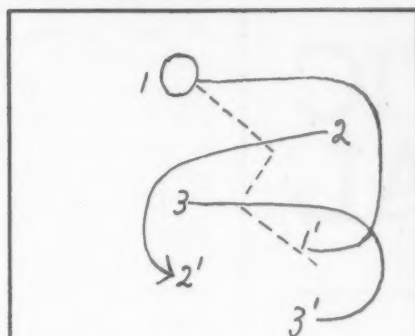


FIG. 1.



FIG. 2.



FIG. 3.



FIG. 4.

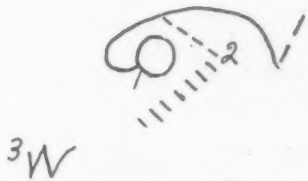


FIG. 5.

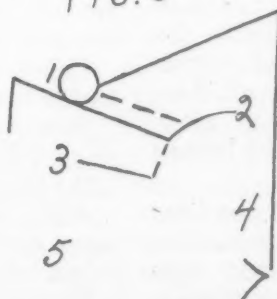


FIG. 6.

virate, the regular three man offensive starts. A pass to a man under the basket or a straight dribble in, should not be passed up simply to continue the system. If the man with the ball is unable to pass or dribble ahead at any time, he may pivot and make a return pass. The man receiving the return pass may start the regular three man offensive, or pivot and return a pass as a regular alternative of the three man offensive. Failing in the regular three man offensive at any time is only to swing into action with the fourth man as described above.

Five Man Offensive

To have five men in action is to place more of a burden on the defensive team. While it may weaken the team defensively, this loss of defensive strength is more than compensated by increased offensive strength.

This five man offensive in over and around is practically the same as three man offensive except that the passer goes around two men rather than around one. Further, the passer goes back diagonally into defensive territory and is fifth man defensively until his receiver passes to a third man. When the third man receives the ball, the first man cuts up along his side of the floor and the second man has retreated diagonally into defensive territory.

As shown in Figure VI, No. 1 passes to No. 2 and retreats into defensive territory. When No. 2 makes the pass to No. 3, then No. 1 starts a cut along his side of the floor toward the basket and No. 2 assumes responsibility of the back defensive man. The system continues in this manner with No. 2 passing to No. 4 and retreating to the defense as No. 2 goes up the floor.

This system gives the advantage of having two men deep in offensive territory to move back the defense team. The man who makes the pass retreats well back into defensive territory and his receiver as well as that of the next receiver cover the ball pretty well defensively.

If a pivot and return pass become necessary, the lineup is just about the same as in the four man offensive. In Figure VI, if No. 2 was forced to pivot and return pass, he would continue to go back of No. 1. No. 3 would have started his cut and would have to retract his cut, feint, and time his cut to get the ball from No. 1 as in the regular three man offensive. No. 4 and No. 5 would cross the floor to confuse the defense as when the ball is passed back to the fourth man, in the four man offensive.

The ATHLETIC JOURNAL

Nation-Wide Amateur Athletics

VOL. IX NOVEMBER, 1928 No. 3

Published by
THE ATHLETIC JOURNAL PUBLISHING CO.
6858 Glenwood Avenue
Chicago, Illinois

JOHN L. GRIFFITH, Editor

It Pays to Play

A REVIEW of the history of athletics in the American schools and colleges in the first quarter of the present century reveals that interinstitutional athletics in that time were developed to a high degree of efficiency. The school and college teams were organized and developed by those who were intensely interested in competitive athletics. Those who were less interested in physical activities not only neglected their own welfare but in a large sense were neglected by others who perhaps should have assumed more responsibility for such students. It is reasonable to believe that the next quarter of a century will find people not only interested in the highly organized contests but also in play activities for the masses. As has been suggested before in these columns, due to the fact that the American people have a large measure of material wealth, they have found it possible to provide a minimum number of playgrounds, athletic fields and field houses suitable to the needs of those who see the value of outdoor and indoor recreation. Only a beginning in the matter of providing play facilities, however, has been made. As our people come more and more to realize the importance of recreation and more fully appreciate the value of physical recreation for their leisure time not only will more adequate provision be made in the way of recreation facilities but also a greater effort will be put forth in providing programs of athletics and recreation for those who need these experiences the most.

Some years ago Charles Evans Hughes said: "We want to have prosperity but in order that prosperity and material gain shall not prove a curse instead of a blessing, we must do all we can to promote the refining influences of life—proper means of recreation, wholesome enjoyment, the cultivation of these capabilities for delight and pleasure which alone make the gains of prosperity a blessing to the human soul."

Martin G. Brumbaugh of Pennsylvania at one time in calling attention to the value of outdoor recreation as a means of developing a worthy citizenry suggested: "We live in an age of lengthening leisure. This leisure is full of menace; it is likewise full of blessing. Leisure within itself is in no way related

to crime, but the use of leisure may be the occasion of such crime. In fact, the peak of crime of any community is coincident with the peak of its leisure, because we have done so little to make leisure count for the intellectual, social, and physical betterment of our people. The right use of leisure is as vital to good citizenship as is the right use of toil.

"Idleness and loafing are alike the enemies of good government. These are the seed beds of much lawlessness, unrest, disorder, and class hatred—the great source of unstable government. Industry and wholesome, constructive recreation are the effective antidotes for many national ills.

"To promote a safe and sane citizenry we shall in the next thirty years legislate more for recreation than for industry. We shall do this because the physical fitness and the moral strength of our people require it. Then we shall have a citizenry that will once again hold a wholesome respect for law and for law-administering agencies."

It is a fine thing for a school or college to have a winning football team but the institution that, in addition to maintaining interinstitutional athletics, also promotes athletics for the entire student body is deserving of praise. Interscholastic and intercollegiate athletics may be used as a means for showing those who are not athletically inclined that "It pays to play." Our athletic directors are very largely responsible for this task of educating their students to a full appreciation of the values of athletic recreation.

Why Boys Play Football

FOOTBALL is all hard work and no fun according to some sports writers and others who like to philosophize regarding the trend in athletics. Now and then some athlete also becomes fed up on football and speaks or writes about the hardships of the game. Men grow tired of golf, baseball, tennis and other sports and frequently near the end of a season in basketball, football or baseball the players suggest that they will be glad when the season is over. Usually these same men, however, are more than eager to start practice when the next season rolls around.

Why is it that high school and college boys play football? Ralph Cannon in the *Chicago Daily Journal* has presented the answers given him by a number of college athletes when this question was asked of them. These replies in abbreviated form follow:

Saul Weislow, captain of the University of Chicago football team, suggested "Football is the only way for a boy living in the city and attending school to get into condition. So far as I am concerned that is the only reason for playing the game."

Captain Rube Wagner of Wisconsin said "I play football because I like it."

Henry Anderson, a Northwestern guard, gave about the same answer when he said "I play because I like the game."

Justin Dart, another lineman on the Northwestern team, says "The real reason I play football is because it is a lot of fun."

Harold Rebholz, Wisconsin full-back, replied "Ever since I was seven years old I have had an ambition to be an athlete and have been playing football since

that time. The football men are my best friends and I get personal satisfaction in playing with them."

Cuisinier, a Wisconsin quarter-back, said "I like the game and I am certain that I will be lonesome for more football after I get through playing."

If these replies may be accepted as fairly representative of the attitudes of the men who are playing the game of football, then those who lament because our boys work too hard and undergo too great hardships in training for football are wasting their time and sympathy.

The Huddle

AS has been suggested in THE JOURNAL previously, our sports follow the styles. The Minnesota shift may be the vogue, the huddle, the double wing-back offense or some other method of placing or shifting men on offense or defense. A few years ago Robert Zuppke made use of the huddle as a primary basis of his shift. His example has been followed quite generally by the school and college coaches throughout the United States. It is now reported that Princeton and Harvard have abandoned the huddle for this year; other prominent teams are starting their attack from a set offense and the chances are that in a few years the huddle will be seldom if ever used.

Granting that it is easier for the men to understand the signals when they come together for that purpose than it is when they are deployed in the line and standing in the backfield especially in a spirited game where the cheering is vociferous and granting that when starting from the huddle the men may be shifted to different strategic positions easily and without indicating in advance to the defense the formation which is going to develop, yet the huddle has never been popular with the spectators. It takes away some of the quarter-back's strategy, especially the kind of strategy that we were accustomed to see a few years ago when the field general looked over his opponent's defense and then called his plays accordingly. Further, the huddle does not lend itself so well to the development of quarter-backs who inspire their teams by the manner in which they call signals or who exercise the qualities of leadership that were so well exemplified by the outstanding quarter-backs of the gridiron before the days of the huddle.

Perhaps some genius will develop a formation which is superior both to the huddle and to the old set formation from which the men receive their signals and start their plays. Anyway it appears that the huddle shift will not be used so extensively this year as last.

All-Americans and Americans All

THE Yankees won the World Series with Ruth, Gehrig, Meusel, Koenig, Lazzeri, Durocher, Grabowski, Bengough, Durst, Paschal, Heimach and Gazella in the line-up. The appearance of names of one time immigrants or the children of immigrants in increasingly larger numbers in baseball has attracted considerable attention.

Baseball is not the only game, however, in which a large number of foreign names appear in the

line-up. Following are some of the names of boys who are playing football this fall on well-known teams: Wisconsin—Lubratovich, Kettelaar, Cuisinier, Rebholz, Gantenbein, Kresky, Horwitz, Binish, Obernandorfer; Notre Dame—Lippig, Chevigny, Bondi, Veize, Caridio; Illinois—Ringquist, Nowack, Stuessy, Wough, Economos, Solyom; Michigan—Truskowski, Pommerening, Steinke, Gembis, Hozer; Purdue—Eibel, Greicus, Tappas; Minnesota—Pulkrabek, Kakela, Okkleberg, Hovde, Nagurski, Arendsee, Frykman.

Some have suggested that the fact that not more of the old American names appear in the line-ups today is because the early American families have accumulated considerable wealth and the third and fourth generation of children have life made easy for them and consequently they are content to sit in the stands and watch the boys who have been used to hard work play the rough and tumble games.

Whatever may be the reason for the wholesale introduction of foreign names into the press accounts of college football games of today, our attention is again directed to the democracy of athletics. Frequently some writer in speaking of the amateur situation suggests that our amateur rule is based on the old English caste system and that if applied in our country would ultimately mean that only the sons of rich men could engage in amateur sports. It is not intended to intimate that the boys whose names are mentioned above are sons of poor parents although if they are they need not apologize. Rather, these remarks are made not only to call attention to the fact that the newer Americans are playing the American games but also that they have found a welcome on the athletic fields where men are rated by what they can do rather than by the accomplishments of their ancestors.

Coaches and Procurers

SOME football coaches have made names for themselves by developing the material which has come to them without solicitation. These men are entitled to a great deal of credit because it takes more work to develop green material than it does to fashion a team out of highly developed athletes. A few coaches have made reputations by turning out teams composed of men who are fairly well advanced athletically when they enter college. Of course, every coach likes to have good material and the better the material that reports to him in the fall not only the greater the chance that he will have success but also the less arduous is his task.

In most of our great universities the coaches have plenty of good material at hand. If they are willing to work hard enough with such material, they will win their share of games. In fact, over a period of years they will probably win more games than will the coaches who depend upon a highly organized recruiting system for getting material. The man who scours the country or beats the bushes for good athletes every summer admits lack of confidence in his own ability to develop athletes from green material. After all there is more satisfaction in winning games with men who have been trained and developed by the coach than there is in winning with boys that have been recruited by the coach or by his agents.

Athletic Budgets in Universities, Colleges, Private Schools, and Public High Schools

By Lloyd Holsinger, M. A.

Director of Athletics, Shattuck School, Faribault, Minn.

and

James M. L. Cooley, M. A.

Shattuck School, Faribault, Minn.

(Continued from October)

Private School Athletic Budgets

1. The Sports.

No single school maintains all the fourteen sports listed; the average number of sports is nine per school. All the schools reporting maintain football and tennis as varsity sports, but St. Paul's School, Concord, N. H., has only one outside game, played as a post-season affair. All but two or three schools maintain varsity teams in the other major sports: basketball, baseball, and track. Swimming, golf, and gymnastics are carried on at sixty per cent of the schools and the other sports listed claim a following of from 52 per cent to 16 per cent in the following order: boxing, hockey, wrestling, fencing and crew. Most of the schools have intramural sports of some sort. A number of the eastern preparatory schools maintain soccer and squash racquets,—the latter as an intramural sport. At Thacher School in California, horseback riding is emphasized.

2. The Coaching Staff.

In very few cases—those of the largest schools—were there any full-time coaches. In practically all the schools, the coaching is done by the regular teaching staff, about 35 per cent on the average assisting with athletics. Figures were not available as to salaries in either case; but in the case of the majority of the teacher-coaches, their athletic work is included in their contract and no salary specified for it.

3. Playing Fields, Courts, Pools, Rinks, etc.

In practically all cases, playing fields are owned by the school so that there is no expense for rentals. Costs of care and maintenance of grounds and buildings are taken care of by the school in the regular routine, but in one case—that of Culver—the total expense of this upkeep is apportioned to the various sports. These costs have not been included in the total team expense as the practice of the schools is uniform in charging this to

The authors, in presenting this article on athletic budgets, hope to help solve some of the problems confronting school boards, administrators, athletic directors and coaches, in the matter of handling and financing athletics.

The article is organized in sections so that a coach or administrator of any one of the groups into which the schools have been divided will have readily at hand the information he needs without having to read it all and sort out his own material. The figures in each of the exhibits are average for the group for which it appears.

We wish to express our thanks to all who so painstakingly filled out the questionnaire which made this article possible. It could not have been done without their help. Our thanks are due also to the author and publisher of "Organized Business Knowledge" by Joseph French Johnson, published by B. C. Forbes, for permission to use any portion of this book.

the general school expense rather than to the athletic budget.

4. Enrollment in School and Athletics.

The average enrollment of schools reporting on the questionnaire is 350. Culver Military Academy, Indiana, is the largest with 700 and Thacher School of California the smallest with 64. In every case except one the entire enrollment is boys and the average number of boys in each school indulging in some form of athletics is 97 per cent. Athletics in all these schools is compulsory and the 3 per cent is composed of boys who are out on account of doctor's orders. It may be interesting to note that the average number of teachers is 35, or one to

every ten boys. Another interesting fact to note here is the high percentage of boys in athletics as compared to the percentage in athletics in high schools.

5. Raising and Handling the Athletic Money.

Two-thirds of the schools replying, levy an athletic association tax. This ranges from \$6.00 to \$50.00 per capita per annum, with an average of \$17.00. In some cases this is supplemented by an additional appropriation from the regular school funds. In schools where there is no blanket tax, the school appropriates a larger amount. Culver, for example, does not specifically tax the cadets for an athletic fund but sets aside a budget from the general fund which is sufficiently large to cover all costs of athletics.

Admission fees to games are charged in only 20 per cent of the schools, and in these only in football, basketball, baseball, and sometimes track. Not much is raised in this way and it should not be counted on in determining the budget. The average gate receipts collected are:

Football	\$780.00
Basketball	285.00
Baseball	35.00
Track	50.00

Total average gate.\$1,150.00

Other methods of raising money were reported as follows: one school collected \$200 from alumni; another \$150 from the sale of advertising space on programs; a third \$350 from the school dramatic association.

The athletic money should be handled by some one person, either the school treasurer or the athletic director and all accounts should be audited by a credited firm of accountants. Either receipts or requisitions should be required for all expenditures. Replies indicated this to be the prevailing custom. In 65 per cent of the schools the treasurer handles the funds; in 20 per cent the athletic di-

ATHLETIC HEADQUARTERS FOR THE COACHES OF THE BIG TEN CONFERENCE HOTEL SHERMAN

**AGAIN THIS YEAR
THE BIG TEN CONFERENCE
WILL BE HELD AT THE
HOTEL SHERMAN**

December 7th and 8th

Your reservation will be waiting for you, guaranteed in price, comfort and service, when you register; and if you motor you can drive your car right into Hotel Sherman—a corridor from the New Garage leads directly into the lobby.

**HOTEL
SHERMAN
GARAGE**
*In The Heart
Of the Loop*



**RANDOLPH CLARK
LA SALLE & LAKE STREETS**

**SINGLE ROOM
WITH BATH**

\$250
PER DAY
AND UP

**DOUBLE ROOM
\$4.00 PER DAY**

1700 ROOMS
1700 BATHS

**ERNEST BYFIELD
PRESIDENT
FRANK W. BERING
VICE PRESIDENT
& GEN. MANAGER**

CHICAGO



We are now offering

**MAYCO
DOUBLE-DRI**

and

**NAME-IN
TURK TOWELS**

direct to

**Universities, Schools
and Colleges**

**Theodore Mayer &
Company**

Cotton Fabric Producers

**323 S. Franklin St.
CHICAGO**

WRITE FOR CATALOGUE

ATHLETIC COACHES **Quality
Positions**

Leading Colleges, State Normals, and Secondary Schools ask us to recommend specialists in Athletics and Physical Education. More than half of the State Universities have selected our candidates. May we assist you? Directors, report your vacancies to us. Details gladly given.

Specialists' Educational Bureau
320 N. Grand Blvd. St. Louis, Mo.

EXHIBIT IV—PRIVATE SCHOOLS

	Football	Basketball	Baseball	Track	Tennis	Swimming	Golf	H'key	Intra-mural	Wrestling	Boxing	Gymnastics	Fencing	Crew
1. Balls, Pucks.....	\$ 91	76	134		35		27	22						
2. Jerseys	129	36												
3. Pants	139	27												
4. Suits			\$125	63		76			*283	*140	*151	*100	*109	*552
5. Shoulder Pads.....	91													
6. Socks	32	12	24											
7. Shoes	117	50												
8. Helmets	89													
9. Adhesive Tape.....	27	13	2											
10. Bandages	8	2	1											
11. Bats, Nets, Foils.....		\$27			28									36
12. Officials (total).....	201	98	80	24	40			50				93		
13. Officials (per game?).....	41	9	11	12	10			8				18		
14. Travel Expense.....	714	315	175	302	64	160	50	110		160	172		25	218
15. Awards	153	74	76	95	85	36	50	65			82			130
16. Printing	40	25		10										
17. Scouting	50													
18. Doctor Bills.....	50	50	50											
Total	\$1,931	778	694	494	212	312	127	247	283	300	498	100	200	900
Total budget for all sports.....														\$7,076
19. Number on Team.....	\$ 25	12	17	24	7	14	7	15		8	13		12	18
20. Number Trips.....	3	4	4	3	3	2	2	3		2	1		2	2
21. Total Mileage.....	820	676	352	717	163	347	150	225		200	150		100	50
22. School Days Lost.....	2	2	2	2	2	2	2	3		2	2		1	2
23. Number in Sport.....	165	95	118	66	74	100	70	159	325	30	62		25	125
24. Cost Per Man (Varsity).....	\$ 77	65	41	21	30	22	18	16		37	33			50
25. Apportionment	27% 11% 10% 7% 3% 4 1/2% 2% 3 1/2% 4% 4% 7% 1 1/2% 2 1/2% 13%													

*Supplies, boxing gloves, equipment, etc. †Not included in total.

rector and in 15 per cent the faculty advisor of the athletic association. In all cases the auditing was done by some one other than the one who handled the money and vouchers of some sort were required.

Most of our correspondents had never heard of any such thing as a surplus at the end of the year, but those fortunate enough to have one returned it to the general fund or put it into improvements or equipment.

6. Discussion of the Budget.

The figures given in the accompanying exhibit for the budget for each sport do not include: (a) coaching salaries, as explained in section 2; (b) cost of care and maintenance of grounds, as explained in section 3; (c) guarantees to visiting teams, explained in the following paragraph; and (d) insurance. In the case of rain insurance, one school reported carrying it on football (\$1,000), baseball (\$450), and track (\$300). Two schools reported carrying liability in-

surance in amounts from \$10,000 to \$50,000.

Guarantees to visiting teams are not included because they are, as a rule, offset by guarantees received from other schools and these guarantees received have not been deducted from the total cost of trips.

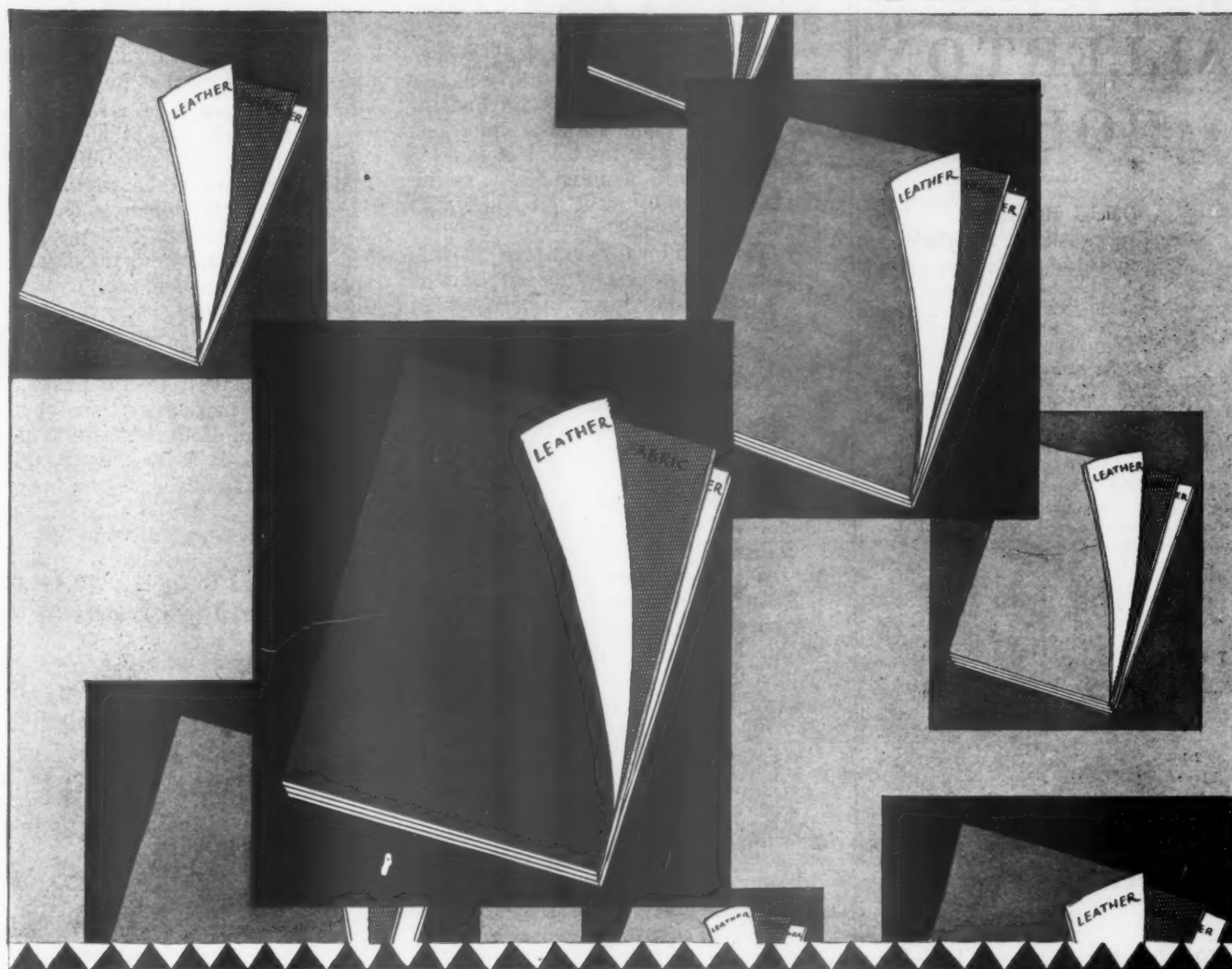
Items 1 to 13 inclusive should be approximately the same for all schools. Slight variations may occur in schools whose enrollments are at the high and low extremes from the average school of 350. In many schools replying, the items of personal equipment are paid by the boys themselves and in those cases the amounts should be subtracted from the budget figure given in the table. It is interesting to note that shoes are almost never supplied, even in schools which provide the rest of the equipment for the members of the team.

Items 14 and 21 will vary greatly according to the location of the school with respect to its distance from out-

Standard Budget for Private School
with no expense for equipment of players. (6 sports only.)

Item	Football	Basketball	Baseball	Track	Tennis	Swimming
1. Balls	\$ 91	\$ 76	\$134	....	\$35	....
10. Tape	27	13	2	....	....	....
11. Bandage	8	2	1	....	....	....
12. Bats-Nets .....	....	....	27	....	28	....
13. Officials	201	98	80	\$ 24	....	\$ 40
14. Trips	714	315	175	302	64	160
15. Awards	153	74	76	95	85	36
16. Printing	40	25	....	10	....	....
17. Scouting	50	....	....	....	....	....
18. Doctor bills ...	50	50	50	....	....	....
Total Budget..	\$1,334	\$653	\$545	\$431	\$212	\$236

	Football	Basketball	Baseball	Track	Tennis	Swimming
Total Budget	\$620	\$338	\$370	\$129	\$148	\$78
Per cent to each sport	36	20	22	7 1/2	9	4 1/2



So simple . . . YET So Effective!

THE Reach exclusive process of laminating a basketball is a comparatively simple operation—yet it results in marvelous playing qualities.

Lamination consists in placing a lining fabric between two pieces of leather, then vulcanizing these three pieces together under 500 pounds pressure. The three pieces become one piece, with a thickness no greater than the thickness of the leather in an ordinary *unlined* ball.

You can readily understand that lamination imparts tremendous strength to a ball. The Reach Laminated basketball will *out-wear* any ball made.

Lamination also prevents stretching. So the laminated ball retains its original true shape—*always*. It is uniform and accurate as long as it is played.

Because of the great strength of the laminated ball, it is possible to use resilient, springy leather. So the laminated ball is lively, and bounces splendidly. And this liveliness *lasts!*

Try the Reach Official Laminated Basketball in comparison with any lined or unlined ball. And we'll gladly leave the choice to you. See the nearest Reach dealer.

REACH OFFICIAL LAMINATED BASKETBALL

A. J. Reach, Wright & Ditson, Inc.

NEW YORK

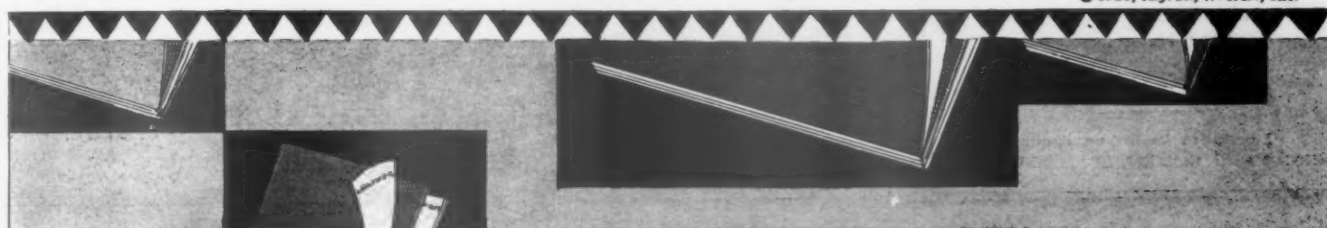
PHILADELPHIA

CHICAGO

SAN FRANCISCO

and BRANTFORD, ONT.

© 1928, A. J. R., W. & D., Inc.



Snappy, distinctive uniforms in tasteful contrasting colors add life and enthusiasm to player as well as the "fan."

Coaches know the value of pepping up with good uniforms



DISPLAYS FOR DEALERS

"Tru-Bounce"

Display card and stand combined holds a full sized inflated ball.

"Gray Streak"

Display card and stand combined holds a single "Gray Streak" Shoe

Other display materials on request

The D&M Catalog Rule Book, and Dealer Prices on request

This illustration shows the No. 540 Jersey with V neck and F stripe. No. 20 Pants with No. 2 and 2B stripes. No. B21 Socks.

FIT OUT Your Basket Ball Teams Completely with the NEW D&M UNIFORM

For Men, Boys and Girls, Professional, University or Interclass

D&M Uniforms are made in a great variety of styles, colors and trimming — good looking! Jerseys, socks and pants to match in from seven to eleven color schemes, with jerseys in a variety of six patterns and striping effects.

Specially Tailored for Ease in Action

D&M Uniforms are scientifically cut and tailored to combine a snug-fitting appearance with ease and comfort in action. Jerseys are knit elastic for neat fit. Pants have snug-fitting waists, large hips and thighs with short inseam and slanting bottom. Soft, free hanging pads sewed at the waistband give protection without impeding speed.

Strong, Durable Materials in Variety

D&M Jerseys of pure, long-fibre wool, worsted or cotton come in three weights (extra heavy, heavy and medium), with necks cut round, V type or V front and back. Made in our own mills where special orders for distinctive color combinations are filled in from four to five days.

D&M Pants come in wool flannel, leatherskin suede, suede cloth, fancy twill and twill cloth with ten styles of striping to meet a wide variety of demands. Prompt service is a D&M feature.

Special Attention to Girls' Uniforms

D&M Girls' Jerseys made of long-fibre wool, worsted are elastic knit, stylish form-fitting and attractive. Made in solid colors with neck and sleeve bindings of snappy contrasting colors.

D&M Girls' Pants are cut full seat and fit snugly at the waist and hips. Well tailored in three leg lengths with side buttons and invisible bloomers and in same wide variety of colors and striping as men's styles.

New Catalog and Prices are Now Ready

Tru-Bounce D&M Basket Ball With "Every Spot a Live One"

IT'S ROUND! "Tru-Bounce" speeds up a game and rewards accuracy of shooting with success.

LACELESS — No dead spots. Laceless, stay-covered seam construction assures a smooth surface and no "dead spot."

RUBBER-CUSHIONED VALVE — Perfect Balance. The patented valve is rubber cushioned to eliminate side play. It is exposed, positive, easy to use and so placed that the Ball is always in perfect balance. Any pump will do.

NON-STRETCH LEATHER — holds its shape. "Tru-Bounce" is made of the finest grade pebbled grain cowhide, specially tanned. The stretch is taken out of the leather by a patented D&M machine before the Ball is made.


DUPLEX CORD WOVEN LINING — for shape. To safeguard shape beyond a doubt the Du-Ply Cord-Woven Lining developed for D&M has a tensile strength, both in warp and fill greater than any yet produced.

"Tru-Bounce" is Round! Really Round! and it will stay Round. Coaches call it "The Ball without a Dead Spot" — and it's a fact.

RETAIL PRICE **\$21**



OFFICIAL BASKET BALL
All that the name implies



D&M GRAY STREAK SHOES

Scientifically Designed for Comfort and Speed

Narrow shank last with sponge rubber "arch cushion." Wide instep stay fits snugly for full protection and support. Sponge rubber "cushion heel" absorbs shock and prevents bruises or blisters.

NON-SLIP TREAD

Is a marvel for grip and wear. It speeds up a team with Swift Starts — Sudden Stops — Flashing Pivots and Confidence. Ladies "Gray Streak" Shoes are the same with narrower last.

\$5

The Draper-Maynard Company

PLYMOUTH, NEW HAMPSHIRE, U. S. A.

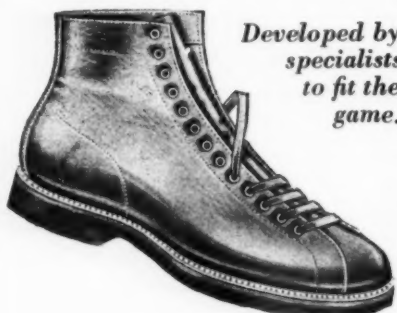
SAN FRANCISCO

NEW YORK

SUTTON, QUEBEC

Witchell
TRADE MARK REGISTERED

BASKETBALL SHOES



*Developed by
specialists
to fit the
game.*

**WORN BY LEADING
COLLEGE, HIGH SCHOOL
and
PROFESSIONAL TEAMS**

**Endorsed by
Leading Coaches**

WITCHELL SHEILL CO.

DETROIT, MICH.

*Worldwide reputation
on fields of recreation*

A TROPHY



A trophy should be worthy of the ideal it represents. The finest gold football possible to make is the only one worthy of your consideration.

For years our footballs have been the accepted standard by the nation's leading coaches. Samples and prices gladly sent on request.

Established in 1898

DIEGES & CLUST

58-64 W. Randolph St.
CHICAGO

15 John St.
NEW YORK

73 Tremont St.
BOSTON

Oliver Bldg.
PITTSBURGH

with football, basketball and track universal favorites and the other sports ranking in popularity as follows: baseball, tennis, swimming, golf, wrestling, boxing, hockey, gymnastics, fencing and rifle. Intramural sports are not popular except insofar as gym classes may be so considered.

2. The Coaching Staff.

Thirty per cent of the schools reporting have no full-time coaches and an equal number reported from two to eight physical education instructors who take care of all coaching. Of the remaining forty per cent, about half maintain one full-time coach for whom the salary is \$2,825 on the average, and the other half have two full-time coaches who take care of all sports and are paid \$2,500 for the first coach and \$2,200 for the second.

As for teacher-coaches, forty per cent report none, thirty per cent average four teacher-coaches with no pay for the extra work and thirty per cent average four and pay them \$178 each for their coaching. Doubtless the teacher-coaches who receive no pay for their athletic work have this made up to them in some other way, either by figuring it as a part of their teaching contract, or by being relieved of other duties by way of compensation. If this is not the case, it obviously ought to be.

In all cases the board of education pays the coaching salaries. This item and the cost of upkeep of grounds is, as a rule, all the money the school boards appropriate.

3. Playing Fields, Courts, Rinks, etc.

Whether these are owned, rented or borrowed, in most cases the school board provides for the upkeep or rentals and so this item is omitted from the total budget. Average figures are given as reported by a very few schools but they are not included in the total. Besides coaching salaries, this is the only item the school boards pay.

4. Enrollment in School and Athletics.

The average enrollment in this group of high schools is 1809. The largest is Pasadena High School, California, with 3,000 and the lowest, Central High School, La Crosse, Wisconsin, and Great Falls High School, Montana, with 1,200 each. About forty-five per cent of the total enrollment is boys and on the average forty-two per cent of these boys participate in athletics of some form or another. Twenty-five per cent of the girls are in athletics. The average number of teachers for a high school of this size is 79, or one teacher to every 23 students.

5. Raising and Handling the Athletic Money.

The school boards appropriate nothing for the running expenses of athletics. Only fifty per cent of the schools levy an athletic association tax and for those that do the average per capita tax is \$1.12 per year, and 59 per cent contribute. Only a very few have means of raising money other than at the gate. For example, one school raised \$130 from the sale of novelties such as armbands, ribbons, souvenir footballs, etc. Another realized \$1,100 on two plays given by the school for the benefit of the athletic association.

The gate receipts, then, are relied on to keep up the athletic program of the school. And it is fortunate that, as a rule, they are sufficient. If the general public does not support the team by going to the games and the school board appropriates nothing, the status of athletics for the boys and girls of the town is in a bad way.

As a matter of fact, among the schools of this size, eighty per cent show a balance in the treasury at the end of the year. Football is the largest contributor. It not only pays for itself but takes care of losses in other sports and still leaves a balance. The one outstanding exception which we discovered is Kokomo High School, Indiana, where the gate receipts for basketball alone amounted to \$12,000 in one year, seven times its receipts in football, whereas the football receipts are usually two to three times those for basketball.

The surplus is used for improvement of grounds or equipment or put into a reserve fund to provide against a future emergency.

The money should be handled by some responsible person and audited by someone else. Receipts or vouchers should be required for all expenditures. It would be well, for example, for a faculty member of the athletic committee, or the head coach, to handle the money. The books could then be audited by the principal of the school, a member of the commercial department faculty or a firm of certified accountants.

Expenses of visiting teams are not included in the budget. Some schools pay their own, some pay a certain percentage, others share the gate receipts. If guarantees are given, these are usually offset by guarantees received. Inasmuch as the guarantees received have not been deducted from the total cost of trips in this budget, it would not have been a fair indication of expense to include this item.

6. Discussion of the Budget.

The figures given in the accompanying



you can SELL MORE SEATS to every game!

Yes, with a stand of these safe, comfortable seats, you can get bigger crowds to every game. Football fans want good seats—they spend all afternoon on them.

Here's why Circle A Bleachers are so safe and comfortable: All wood parts are of strong Southern Pine or Douglas Fir. All strain parts are reinforced with metal. Circle A Bleachers are actually tested to hold four times the weight of a live load. They are sloped to give every fan a clear view. All corners are rounded. The seats and footboards are quite wide enough.

If your stadium has side and end stands, fill in the corners with Circle A Bleachers. They can pay for themselves the very first game.



Circle A Bleachers can be set up just as the customers are buying tickets—they "go up" so fast. Or, they can be used all year as permanent stands. And, Circle A Bleachers won't stop work when football is over. They do duty in the "gym" or on the diamond—there's no end to their usefulness. Find out about them right away.

CIRCLE A PRODUCTS CORPORATION

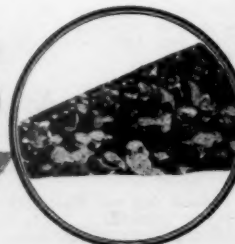
550 So. 25th Street, Newcastle, Indiana .



CIRCLE A BLEACHERS

These Safe Seats Mean Bigger Crowds

SECTIONAL AND PORTABLE



FOR
CHARLEY HORSE
and
OTHER DEEP SEATED
MUSCULAR INJURIES
USE
MATT'S OILS



**Hotstuff Liniment
and
Solidified Liniment**

Matt Bullock, famous Trainer of Athletes at the University of Illinois has prepared and used for years various medications and which have been in demand by other trainers and coaches throughout the United States.

Solidified Liniment

Solidified Liniment is a pastellike hotstuff having a lanain (purified wool fat) base for use in treating deeply sprained ankles, Charley Horse and such as require a great amount of heat. A perfect Hotstuff.

1 lb. Jar Solidified Liniment.....	\$2.50
1/2 lb. Jar Solidified Liniment.....	1.75
2 oz. Jar Solidified Liniment.....	.60

Rubbing Oil

Rubbing Oil is a lubricant which is highly antiseptic and should be used as a massage lotion. Promotes relaxation of the muscles and prevents body chill in track and is a benefit with a heating light, wet compresses or packs.

1 pt. Rubbing Oil.....	\$.85
1 qt. Rubbing Oil.....	4.90

Hotstuff Liniment

Hotstuff Liniment is made from a lanain (purified wool fat) base liquefied which creates and retains a great amount of heat. Can be used freely without discomfort to patient. Is used for penetrating in deep setting muscular injury, for use in Charley Horse, sprained ankles and other joint injuries.

1 pt. Hotstuff Liniment.....	\$1.25
1 qt. Hotstuff Liniment.....	6.75

Matt's Oils

1 pt. Mercurochrome	\$1.50
1 pt. Rubbing Alcohol .....	.30
1 pt. Rubbing Solvent .....	.65
1 pt. Hotstuff	1.25
1 pt. Tincture of Benzoin (Compound)	1.00
1 pt. Rubbing Oil .....	.85
1 pt. Hold Ball Compound.....	1.00
1 oz. Gym Itch Ointment.....	.50
1 lb. Solidified Liniment	2.50
1 lb. 1/4" Ankle Tape .....	.40
1 dz. Roller Ankle Bandages	1.20

TOTAL.....\$11.75

We will ship you this merchandise at once upon receipt of your order. Tear out this advertisement, and mail today.

BAILEY & HIMES

Athletic Equipment

Champaign, Illinois

(Send for our Complete Fall Catalog)

ing budget for each sport do not include:

(a) coaching salaries, as explained in section 2.

(b) cost of care and maintenance of grounds, explained in 3.

(c) expenses of visiting teams, explained in section 5.

(d) Insurance. Liability insurance is not carried at all and rain insurance in only one-third of the schools reporting, mainly for football, or when teams come from a long distance.

Items 1 to 13 should be approximately the same for all schools of this group except for those at the high or low ends of the scale of which this is an average; that is, those approximating 3,000 or 1,200 enrollment. Most of the schools supply all these items even including shoes.

Items 14 and 21 will vary according to whether or not a school has its competition within the city where it is located. If a school must make long trips to meet outside competition, this item will be comparatively larger. A number of schools located in cities where their only opponents are other city high schools have no expense for transportation. This matter must be taken into consideration when using this budget as a standard or guide in drawing up the budget for any given school.

Item 15. All of the schools give letters to letter men, but in thirty per cent of the cases the winners pay for them themselves. Only ten per cent give sweaters as well as letters to letter men.

Item 16. In some school leagues, the league pays this item.

Item 17. Scouting is limited to football and then only thirty-five per cent indulge in it. One exception to this is a high school which spends \$150.00 for basketball scouting.

Item 18. For a discussion of this item see section 3.

Item 19. These figures represent averages from a very small per cent of schools questioned. In many cases a nominal yearly fee is paid to a doctor for his services. In a number of others the medical service is donated by local doctors. This item is, however, included in the total.

Item 20. For a discussion of this item see section 5.

Item 24. Fifty per cent report no days lost. The figures are for the other fifty per cent.

Sufficient data was not given on the following sports to enable us to include figures for them in this exhibit: gymnastics, fencing, and rifle. Very few schools maintain any of them as a varsity sport.

7. How to apply the budget.

The typical or average budget as given in this discussion is intended to be a standard or norm by which a principal or coach may be guided in drawing up his own athletic budget. It must be adapted to local conditions. Under average conditions, a high school of 1,800 (the average enrollment of schools over 1,200) which maintained the seven sports listed would have an annual budget of \$5,234.00. Where there are no costs of travel this item alone would reduce the budget to \$3,559.00. On the other hand, a school which is obliged to rent the playing fields will have to increase the budget somewhat to take care of that item.

Standard budgets are given below for high schools which maintain the following sports: football, basketball, baseball, and track. These are given as examples to show how the budget given in the exhibit should be adapted to local needs.

**STANDARD BUDGET FOR HIGH SCHOOLS
WITH ENROLLMENT OF 1,200 AND
OVER (4 SPORTS)**

Item	Foot- ball	Basket- ball	Base- ball	Track
1 to 12 (inc.).....	\$1,286	\$484	\$334	\$281
14. Trips	417	419	190	217
15. Awards	25	13	22	17
16. Printing	80	55	65	19
17. Scouting	50	---	---	---

Budget	\$1,858	\$971	\$611	\$534
Total	\$3,974			

Percent to each sport..... 46% 24% 17% 13%

If the cost of trips is omitted, the figures in the last two horizontal rows will be:

Item	Foot- ball	Basket- ball	Base- ball	Track
Budget	\$1,411	\$552	\$421	\$317
Total	\$2,701			

**STANDARD BUDGET FOR HIGH SCHOOLS
WITH ENROLLMENT OF 1,200 AND
OVER (3 SPORTS)**

Item	Foot- ball	Basket- ball	Track
1 to 12 (inc.).....	\$1,286	\$484	\$281
14. Trips	417	419	217
15. Awards	25	13	17
16. Printing	80	55	19
17. Scouting	50	---	---

Budget	\$1,858	\$971	\$534
Total	\$3,363		

Percent to each sport..... 55% 29% 16%

If the cost of trips is omitted, the figures in the last two horizontal rows will be:

Item	Foot- ball	Basket- ball	Track
Budget	\$1,411	\$552	\$317
Percent to each sport.....	62%	24%	14%

High School Athletic Budgets

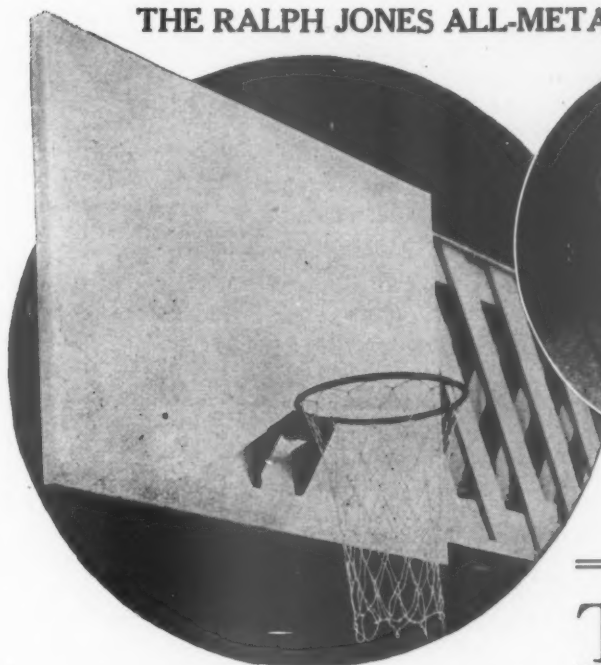
B. High Schools of 600 to 1,200 Enrollment.

1. The Sports.

The average number of sports for a high school of this group is five with football, basketball, and track universal favorites. Baseball is maintained at eighty per cent of these schools and tennis at sixty-seven per cent. In addition one or two of the following are sometimes added: swimming, golf, wrestling, hockey. Fencing is maintained at Joplin, Missouri. The largest number of sports at any one school is seven: at Casper, Wyoming; Joplin, Missouri; Santa Monica, California; and Whittier, California.



THE RALPH JONES ALL-METAL BASKET BALL BANK



RALPH JONES*
Athletic Director
Lake Forest (Ill.) Academy

THE greatest offensive—as well as defensive—play in basket ball is recovering the ball from the bank. If you recover the ball, you are in It is the great defensive play. If you recover the ball a good per cent of the time, you not only have possession of the ball that much more, but your opponents will not dare to break an offence until they get the ball.

Begin your defence under your own basket by getting the ball from the bank.

Recovering the ball from the opponents' bank is just as important. You stop their offence, at the same time getting into position to start your own. *No one-shot team ever won a championship.*

If a couple of your men are reliable taking the ball from the bank, their team-mates can take a chance by breaking an offence just after an opponent takes a shot.

Recovering the ball from the bank requires accurate timing. The tendency is getting in too soon, allowing the ball to bounce over one's head. It pays to practice on a rigid, speedy bank. Heavy plate glass makes such a bank but is very expensive and has several disadvantages. The Ralph Jones All-Metal Bank is inexpensive and has all the advantages of plate glass but none of the disadvantages. It is absolutely rigid and practically everlasting. The finish is as smooth as glass, will stand the knocks for years, and add to the appearance of your gymnasium.

Don't practice on a wooden bank and then be at a disadvantage when using a speedy bank. *Let the other fellow do that.*

*NOTE.—Coach at Wabash five years, losing but four games, three of which were lost in one year. Defeated such teams as Columbia, then Eastern Champions; Minnesota, Western Champions; Yale, Purdue, Indiana and Illinois.

At Purdue for three years and had two championship teams, one of which was a 100 per cent team.

Coach at Illinois the following eight years. During this time had two championship teams, one a 100 per cent and was up around the top all the time.

Now Athletic Director at Lake Forest Academy. In the last five years the basket ball team has won sixty-three out of sixty-six games played. Won the National Academy Championship at the University of Wisconsin in 1928.

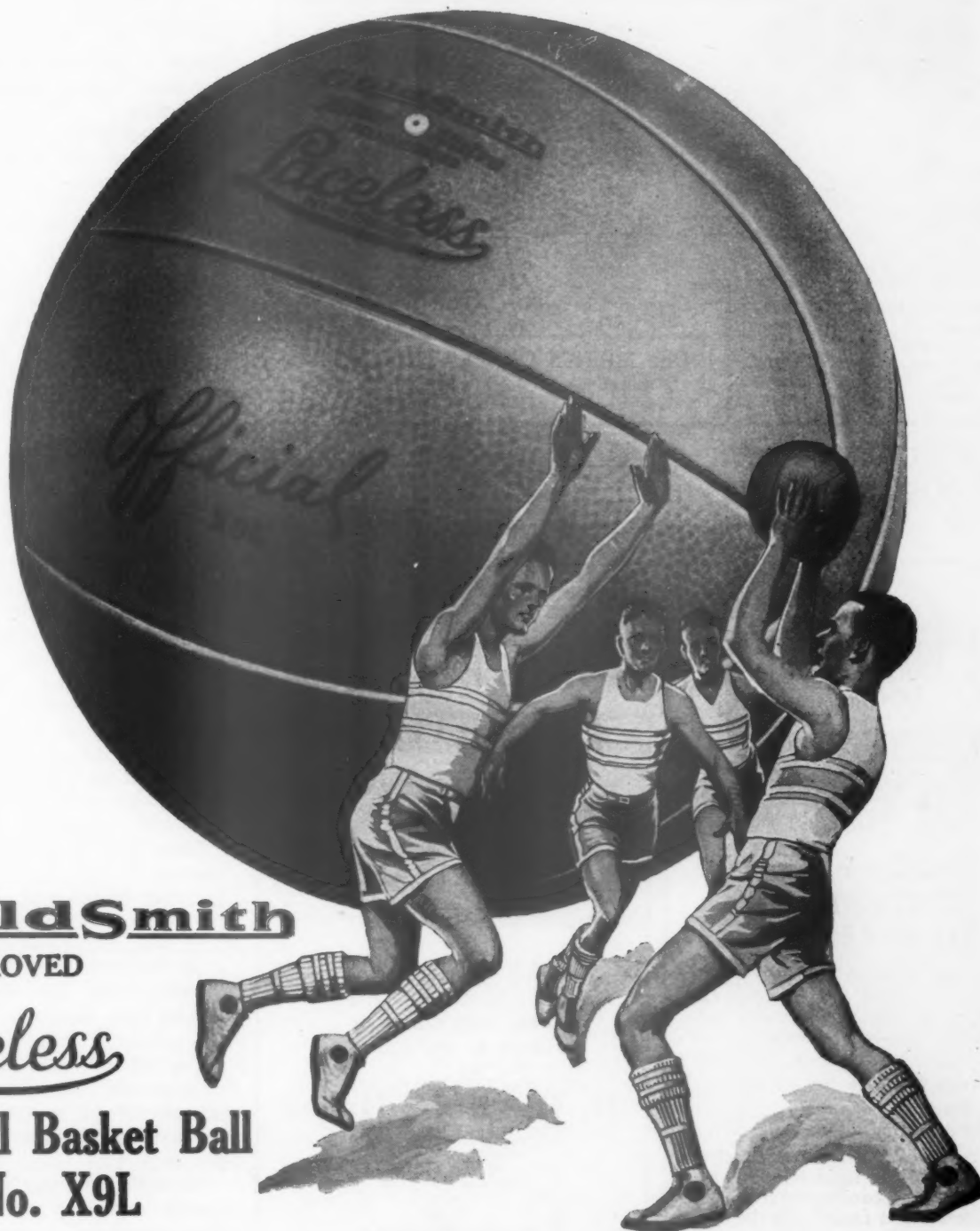
PRICES ON APPLICATION SOLD EXCLUSIVELY BY .

A. G. Spalding & Bros

211 South State St.

Chicago, Illinois

The Acknowledged Leader! *Perfect Shape! Stamina!*



GoldSmith

IMPROVED

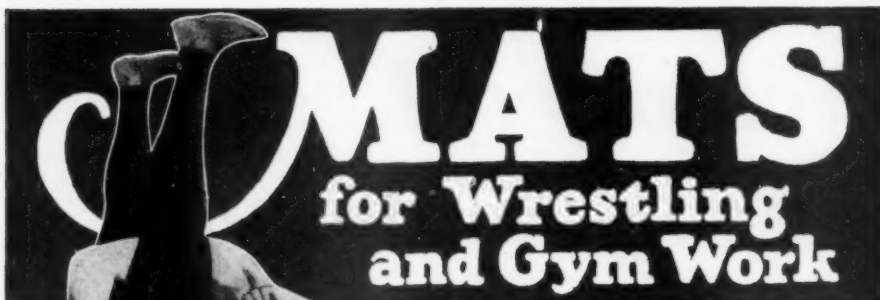
Laceless

Official Basket Ball
No. X9L

THE P. GoldSmith SONS CO.

ATHLETIC GOODS MANUFACTURERS

CINCINNATI, - OHIO - U. S. A.



MATS for Wrestling and Gym Work



Write for our illustrated circular which completely describes the DeMOIN Gymnasium Mat. Duotex filling (an exclusive feature) gives this mat two surfaces with two degrees of resiliency. One side is softer than the other. The woven hair and felted hair used in Duotex filling will not "mat" and can be re-covered again and again.

It is covered with heavy, unbleached, wide roll duck. Mats or pads are made in any size, for any purpose. You can depend on DeMOIN Gymnasium Mats for long wear and satisfactory service.

By selling direct, you get these high grade mats for less money.

Write today for circular and prices.

DES MOINES TENT & AWNING CORP.
913 Walnut Street DES MOINES, IOWA

OUR SPECIAL COVERS

Make Old Mats As Serviceable
As New Ones

Made of heavy cotton flannel. Lace on over worn out covers. Are remarkably durable.
WRITE for PRICES

TACKLING DUMMY	\$10.00
BLOCKING DUMMY	\$ 7.50

IN STOCK FOR IMMEDIATE SHIPMENT

ARCUS Guaranteed TICKETS

Basket Ball TICKETS In a Hurry

Waited a bit too long? Don't worry, we'll take care of you! On a pinch, we can execute a full outfit of tickets—to diagram—the same day the order is received!

Semester Coupon Books

All other ticket needs

In any quantity—Pronto!

Arcus Ticket Service is equal to all demands. It is intelligent, accurate; and is backed by the best-equipped ticket factory on the continent.

Send samples of tickets and coupon books, stating quantities required; we will quote immediately; by wire if you wish.

The Arcus Ticket Co.

340 N. Ashland Ave.
Chicago, Illinois

PERCENTAGE BASKETBALL

a scientific book
on

BASKETBALL OFFENSE

Send money order or
check to the author

R. H. "Bob" Hager

Supervisor of
Physical Education

Public Schools
Tacoma, Washington

Price \$2.00

high as \$30,000 has been accumulated from athletic surpluses.

The largest revenue in gate receipts is derived from football; in some schools of this group it is enough to meet any deficit in other sports. Basketball just about pays for itself and the other sports show a decided loss.

6. Discussion of the Budget.

The figures given in the accompanying budget do not include coaching salaries and guarantees to visiting teams. Coaching salaries are paid by the school board. Guarantees to visiting teams are usually offset by guarantees received and guarantees received have not been deducted from cost of trips. No liability insurance is carried by schools in this group and rain insurance only in football to the extent of \$75.

Items 1 to 13 should be approximately the same for all these schools. Mention should be made of the fact that in football 95 per cent of the schools require the boys to buy their own shoes. In the other five per cent the average expenditure for football shoes is \$225. In view of these circumstances the item was omitted from the total as it would give an unfair impression of amounts spent.

Items 15 and 24 will vary according to the location of the school concerned and its distance from competitors. If it is in an urban district these figures should be lower. If it is in a location where longer distances must be covered to meet competition, these figures will be larger. Some travel by bus, some by train, and some in privately- or school-owned conveyances. This must be taken into consideration in arriving at the total budget for any school in this group.

Item 16 will vary according to the custom of the school in giving honor awards. 87 per cent of those reporting give only letters; seven per cent give both letters and sweaters; six per cent give neither. In one school, the sweaters are not given until three letters have been won. The figures on the exhibit for this item are, in the main, for letters only.

Item 19. 75 per cent of these schools do no scouting. The figures are average for the other twenty-five per cent.

Item 20. In thirty per cent of the towns reporting the doctors donate their services. In most of the others the fee is only nominal.

7. How to Apply the Budget.

The typical or average budget as given in this discussion is intended to be a standard or norm by which a principal or coach may be guided in drawing up his own athletic budget. It must be adapted to local conditions.

Under average conditions, a high school of 854 (or the average school between 600 and 1,200) which maintains all nine sports listed will have an annual budget of \$4,654. Where there are no costs for travel, this item alone will reduce the budget to \$3,113.

On the other hand, schools which have to rent their courts or playing fields will have to increase their budget to take care of that item.

Again, there are no high schools in this group which maintain all nine sports; the average number is five.

Below are given some standard budgets for high schools which maintain five and three sports. These are given as examples of how to apply the budget to the individual school.

**STANDARD BUDGET FOR HIGH SCHOOLS
WITH ENROLLMENT OF 600 TO 1,200
(5 SPORTS)**

Item	Foot- ball	Basket- ball	Base- ball	Track	Ten- nis
1 to 13 (inc.)	\$1,096	\$526	\$443	\$290	\$37
15. Trips	505	316	167	196	41
16. Awards	25	15	18	6	4
17. Printing	69	29	15	16	..
18. Upkeep	158	..	..	30	..
19. Scouting	40	10	..	..	..
20. Doctor bills	101	30	..	..	..
Budget	\$1,994	\$926	\$643	\$538	\$82
Total	\$4,183				

Percent to each sport 49½% 21% 16% 12% 1½%
If the cost of trips is omitted, the figures in the last two rows will be:

Item	Foot- ball	Basket- ball	Base- ball	Track	Ten- nis
Budget	\$1,489	\$610	\$476	\$342	\$41
Percent to each sport	49½%	21%	16%	12%	1½%

**STANDARD BUDGET FOR HIGH SCHOOLS
WITH ENROLLMENT OF 600 TO 1,200
(3 SPORTS)**

Item	Foot- ball	Basket- ball	Track
1 to 13 (inc.)	\$1,096	\$526	\$290
15. Trips	505	316	196
16. Awards	25	15	6
17. Printing	69	29	16
18. Upkeep	158	..	30
19. Scouting	40	10	..
20. Doctor bills	101	30	..
Budget	\$1,994	\$926	\$538
Total	\$3,458		

Percent to each sport 57% 27% 16%
If the cost of trips is omitted, the figures in the last two horizontal rows will be:

Item	Foot- ball	Basket- ball	Track
Budget	\$1,489	\$610	\$342
Total	\$2,441		
Percent to each sport	61%	25%	14%

High School Athletic Budgets

C. High Schools of 300 to 600 Enrollment.

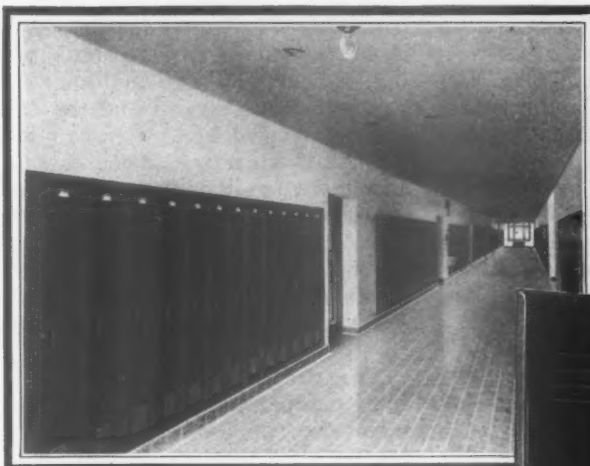
1. The Sports.

Although fifty per cent of the high schools in this group have only three sports, the average number is four per school. Eveleth, Minnesota, has six. Football and basketball are played in all and baseball and track in thirty-five per cent of them. Tennis, swimming, and hockey are also maintained.

2. The Coaching Staff.

Schools in this group reported, in general, one full-time coach who takes care of all athletics and gym classes. The average salary for such a man is \$2,337. The average number of teachers assisting in the coaching is also

LYON



Steel Shelving... Lockers
... Cabinets... Counters
... Steelart Folding Tables
and Chairs. General Steel
Storage Equipment and
Steel Furniture. The Lyon
name and trade mark
attest the strength, finish,
usefulness and durability
of Lyon Steel Products.

LOCKERS in corridors and in Athletic departments—high schools or colleges—are due for some pretty vigorous treatment. That's why it pays to get Lyon Durand-type Lockers. The steel frames are strong, the doors are the most rigid locker doors made, the hinges are so secure that a man can throw himself against a door without springing a hinge. All over the country there are installations of Lyon Durand-type Lockers, installed on plans worked out through co-operation of architects, school authorities and Lyon Engineers.

**LYON METAL PRODUCTS,
INCORPORATED
AURORA, ILLINOIS**

Successor to:
DURAND STEEL LOCKER CO.
Chicago Heights, Ill.
LYON METALLIC MFG. CO.
Aurora, Ill.

S T E E L



L O C K E R S

one and his extra pay for this work is \$158.

In all cases the school board pays the coaches' salaries. This item and the cost of upkeep of grounds are the only ones for which the school board appropriates funds.

3. *Playing Fields, Courts, Rinks, Etc.*

About half of these schools own their own playing fields. The rest either use municipal fields and courts or rent. In the case of basketball, rental of courts is such a common occurrence that it was thought advisable to include this figure in the budget. As a rule the school board pays for the upkeep of school-owned fields.

4. *Enrollment in School and Athletics.*

The average enrollment of schools from 300 to 600 is 446, of which 201 are boys. Of the boys twenty-nine per cent are in athletics, and of the girls eight per cent. Only twenty-five per cent of these schools have interscholastic athletics for girls; their athletics consists in interclass competition and gym work. These figures are given so that any school which is much larger or smaller than the average may slightly vary its budget accordingly.

There are twenty-five teachers, or one to every eighteen students.

5. *Raising and Handling the Athletic Money.*

In addition to coaching salaries and upkeep of grounds, for which all school boards appropriate funds, fifty per cent of the school boards in this group appropriate an average of \$407 for athletics, while the other fifty per cent appropriate nothing extra. Other sources of revenue are (1) an athletic association tax, which is levied in fifty per cent of these schools and averages \$1.94 per capita with ninety per cent

contributing; and (2) gate receipts. In addition to this, in forty per cent of the schools an average of \$334 is raised by school plays given for the benefit of the athletic association.

In this group of schools, on the average, no sport is self-supporting, although basketball comes nearest to being so. In individual cases, too, basketball is more often self-supporting, or nearly so, than any other sport. Football comes second and the others show a decided loss. Consequently a surplus is a rarity. When there is a surplus, it is either kept on deposit to relieve the school board the following year, or kept in a fund to meet emergencies. This is the case of Bowling Green High School, Kentucky, which has exceptionally large gate receipts for this size high school.

The money should be handled by some one person, preferably a faculty member of the athletic committee. He should have receipts or vouchers for all expenditures and his accounts should be audited by either the principal or a firm of certified accountants. Only in this way can a budget be accurately managed. Every principal should require the audit. It may cause him some bother but it may save a good deal of trouble.

6. *Discussion of the Budget.*

In the figures given in this exhibit the following items are not included: (a) coaching salaries; (b) cost of care of grounds, except a small figure for football; (c) guarantees to visiting teams; (d) insurance.

The first two of these are taken care of by the school board. Guarantees to visiting teams are usually offset by guarantees received and as these latter were not deducted from the cost of trips the item is not included in the budget.

No liability insurance is carried by

these schools and only six per cent—as at Laramie, Wyoming,—carry a small rain insurance.

Items 1 to 13 should be approximately the same for all schools of this group, except that in forming his budget a coach should not include items which the boys pay for themselves.

Item 12 includes adhesive tape and bandages.

Items 15 and 25 will vary according to the distance a school must travel for outside competition. In densely populated sections where travel costs are practically nil, the item should be much smaller and maybe disappear altogether. Especially is this true if a school bus or privately-owned conveyance is used. On the other hand, schools which have to travel long distances will have to increase these figures.

Item 16. Sixty-nine per cent of the schools give letters only; twenty-five per cent give letters and sweaters and six per cent give neither. This item will be slightly more in schools where sweaters and letters are both given.

Item 18. Cost of maintenance of grounds is usually met by the school board. The figure appearing here is for minor attention which a football field needs during the course of the season.

Item 19. Scouting is practised in a very limited degree and only in football.

Item 20. Rental of basketball courts is a very common occurrence and is usually paid from the athletic funds rather than by the school board.

Item 21. The figures for doctors' bills are purely nominal. In the majority of cases the local doctor donates his services.

7. *How to Apply the Budget.*

The typical or standard budget as given in this discussion is intended to be a norm or guide to a coach in determining the athletic budget for his individual school. It must be adapted to local conditions. Expenditures which a school does not have should be cancelled from this budget in forming a budget for that school. If the members of a team supply their own shoes, for example, the amount of this item should be deducted from the budget given in the exhibit. Similarly, a school whose traveling costs are nil will omit that item.

Question: Team A, standing on its five yard line, attempts a forward pass which is blocked by Team B and the pass becomes incomplete in the end zone. What is the ruling?

Answer: This is a safety by definition.

EXHIBIT VII—HIGH SCHOOLS 300 TO 600

	Football	Basketball	Baseball	Track	Tennis	Swimming	Hockey
1. Balls	\$ 43	63	25	.....	14	.....	40
2. Jerseys	69	36	.....	.....	.....	.....	.....
3. Pants	94	29	.....	.....	.....	.....	20
4. Suits .....	.....	40	28	.....	.....	40	.....
5. Shoulder Pads	51	.....	.....	.....	.....	.....	18
6. Socks	26	14	17	.....	.....	.....	.....
7. Shoes	47	55	.....	30	.....	.....	.....
8. Helmets	51	.....	.....	.....	.....	.....	.....
9. Equipment .....	.....	.....	12	.....	.....	.....	.....
10. Bats .....	.....	14	.....	.....	.....	.....	.....
11. Tennis Nets .....	.....	.....	.....	.....	15	.....	.....
12. Medical Supplies	16	9	3	6	.....	.....	7
13. Officials (total)	124	115	13	10	.....	30	60
14. Officials (per game*)	21	13	7	10	.....	15	15
15. Travel Expense	266	170	77	88	18	78	150
16. Awards	27	26	4	36	2	8	12
17. Printing	32	28	.....	.....	.....	.....	.....
18. Care of Grounds	46	.....	.....	.....	.....	.....	.....
19. Scouting	9	.....	.....	.....	.....	.....	.....
20. Rentals .....	.....	121	.....	.....	.....	.....	.....
21. Doctor Bills	83	23	.....	.....	.....	.....	.....
Total	\$984	689	193	210	49	156	307
Total budget for all sports .....	.....	.....	.....	.....	.....	.....	\$2,588
22. Gate Receipts	\$720	506	42	65	.....	75	200
23. Number on Team	21	10	14	15	3	12	13
24. Number Trips	4	7	4	3	3	8	4
25. Total Mileage	522	536	185	469	245	265	345
26. School Days Lost	2	2	2	2	2	.....	.....
27. Number in Sport	47	32	31	44	43	41	40
28. Cost Per Man	\$21	22	6	5	1	4	8
29. Apportionment	38%	27%	7%	8%	2%	6%	12%

*Not included in total.

PRICE—QUALITY—SERVICE

THAT'S RAWLINGS!

BASKET BALL CLOTHING, SNAPPY STYLES

Designed for Comfort and Freedom of Action

PRICES THAT ARE RIGHT—SERVICE THAT SATISFIES

RAWLINGS

No. AXS

OFFICIAL INTERCOLLEGIATE BASKET BALL

Surface Valve Model.
Bladder can be re-
placed without send-
ing ball back to
factory.



Made from selected,
special tanned pebble
grain cowhide. Ex-
pert workmanship
throughout.

OFFICIAL FOR ALL GAMES AND PERFECT IN MATERIALS AND WORKMANSHIP

See Your Dealer for Prices

UNIFORMS

Shirts, Pants and
Stockings
Latest Styles and
Colors
Any Color Combi-
nation Desired

Also

Pads - Shoes
Goals - Sundries

WOMEN'S AND GIRLS' BASKET BALL EQUIPMENT

A complete line of approved designs, in
Jerseys, Middies, Bloomers, Pants and
Hose in Correct Materials and All Colors.

RAWLINGS

23rd and Lucas Avenues
ST. LOUIS, MO.

8 West 37th St. 717 Market St.
NEW YORK, N. Y. SAN FRANCISCO, CAL.

LEVIS

Score and Record Book
Revised Edition

(Copyrighted)

This Score Book gives a com-
plete record of each game
and of the individual per-
formance of each player.

SEND FOR

*Fall Catalog Fully
Describing Above
Equipment.*



**LOVING
CUPS**

of quality and distinction at genuine wholesale prices.

Write for illustrated folder and price list A.

The Favor & Gift Supply Co.
110 FIFTH AVE., N. Y. CITY

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, OF THE ATHLETIC JOURNAL, published monthly except July and August at Chicago, for October 1, 1928.

State of Illinois,)
County of Cook,) ss.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared John L. Griffith, who, having been duly sworn according to law, deposes and says that he is the Owner of the ATHLETIC JOURNAL, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, JOHN L. GRIFFITH, 6858 Glenwood Ave.
Editor, JOHN L. GRIFFITH, 6858 Glenwood Ave.
Managing Editor, JOHN L. GRIFFITH, 6858 Glenwood Ave.
Business Manager, JOHN L. GRIFFITH, 6858 Glenwood Ave.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

JOHN L. GRIFFITH, 6858 Glenwood Ave.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is..... (This information is required from daily publications only.)

(Signed) JOHN L. GRIFFITH.

Sworn to and subscribed before me this 16th day of October, 1928.

(Seal) ROY C. CLARK.
(My commission expires March 24, 1932.)

Psychological Vs. Tactical Fundamentals

Coleman R. Griffith, Ph.D.

Director of Research in Athletics, University of Illinois.

THE first days of the football, basketball, and baseball seasons are always given over to practice in the fundamentals of a sport, under the assumption that if the fundamentals are well learned, the rest will follow more easily. In football, the fundamentals are said to be tackling, blocking, passing, kicking, punting, and the like. In basketball, the coach tells how to shoot (both from the floor and from the foul line), dribble, pivot, guard, and the like. In baseball, there are batting and throwing, fielding, bunting, running and sliding. In much the same manner, every sport picks out its fundamentals and before any games are played these fundamentals are faithfully practiced until considerable skill in them is attained.

At length comes the day when the fundamentals are put together and an attempt is made to play the game as a whole. Few coaches there are, who have come to this point in the training program and who have not wondered why everything has seemed to go so badly. They recall the hours spent in faithful practice and when they note the meagre income from their investment of time and work, they begin to wonder about their coaching methods or cast reflections upon the ability of their men. It does not always occur to them to ask about the relations that obtain or should obtain between the so-called fundamentals of a sport and the sport itself. Does practice in the common fundamentals of a game lead to excellence in the game as it is actually played?

The answer to this question depends upon a distinction that must be drawn between tactical and psychological fundamentals. The activities we have named—that is, punting, blocking, pivoting, shooting baskets, fielding a ball and others,—are the tactical fundamentals of the games we play. The question is asked, "What are good tactics in this sport?" and the answer is given, "This is the way in which one should tackle or throw the ball or pivot. This is the way in which..... etc." Practice is then concentrated on this "way in which."

But there is a difference between a tactical unit and a "playing unit" of a game. This playing unit we may call the psychological fundamental. Let us consider several illustrations.

A boxer, in his training program, resorts often to the punching bag in order, incidentally, to strengthen his muscles and in order, fundamentally, to perfect the form of certain punches. A punching bag is not, however, an uncertainly moving, planning, deceiving, dodging, retaliating, opponent. Its movements are determined by the mechanics of motion, not by the alert decision of a human mind. The tactical fundamentals gained by practice at the punching bag do not equal the fighting fundamentals represented by an opponent on actual defense against an attack.

This is the main difference between a tactical and a psychological fundamental. The tactical fundamental is some artificial segment of a game which is picked out because it appears to be significant and which is practiced as if it were, in itself, a genuine segment of the game. The psychological fundamental is a genuine playing unit of a game, a rest part of the game, and it is only when these psychological rather than the tactical units are practiced that skill is gained in the playing of the game.

Consider another illustration. In one series of observations on a high school basketball coach and his methods, it was found that 67 per cent of the total time allotted to practice was spent in learning to shoot baskets while the men were standing perfectly still on the floor or when they took, from a standing position, one or two preliminary steps. In the games which this team played (12 games) less than one per cent of the shots actually attempted were made from a standing position. That is, 67 per cent of the time was spent on a skill which was used less than one per cent of the time.

Shooting baskets from a standing position is, no doubt, a tactical fundamental in basketball. It is something that may be learned, and it may look nice as a stunt on the vaudeville stage, but it is not the kind of skill that is actually used on the basketball floor, for during the game the players are almost always in movement and shooting is done while this movement is under way. It is one thing to learn to shoot standing still and quite another to learn to shoot while on the run, or while just recovering from a fast dribble. As a

matter of fact, the transfer of training from stationary basketball shooting to actual game conditions is so small as to make this form of practice almost useless. It may safely be said that no basketball player should ever be allowed to shoot from a standing position unless he is on the foul line trying for a free throw. All attempts at the basket should be made while the body is moving under conditions comparable to game conditions. That is, a man should learn to shoot just after escaping from a guard, or just after having received the ball and in advance of an oncoming guard, or at the end of a fast dribble. This means practicing a real segment of a game, a psychological unit of the game, and not some artificial segment which has only a doubtful relation to game conditions.

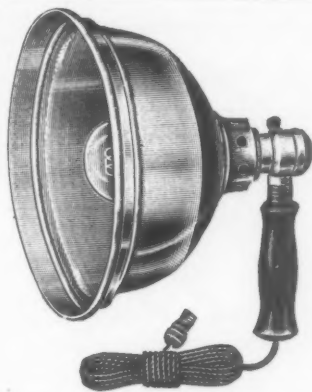
We may consider still another illustration. Batting is a fundamental of baseball. So, too, is base-running. Consequently, we put men at a plate under a batting cage and ask them to hit at the ball over and over again so that they may develop a batting eye. On another occasion, we ask them to run bases. No doubt both of these skills are important but under actual conditions the thing that counts most is to hit the ball and run. The "and run" part is the part that is rarely practiced. A study of the time it takes to recover from a strike at the ball and get under way toward first base shows that the average ball player consumes almost as much time to cover the first ten feet as he does to cover the last eighty. Most of his time is lost in doing something that is rarely practiced viz., batting the ball and starting to run at almost the same moment. The tactical fundamental is to learn how to hit. The playing fundamental, the psychological unit is the whole series of movements comprising a "hit-and-run" sequence. The importance of practicing this psychological or playing unit arises out of the fact that many of the muscular movements necessary to complete a good hit are antagonistic to the movements necessary for making a quick start on the thirty-yard dash to first base.

These same facts hold true of any fielder. Think, for example, of the short-stop. The act of fielding a fast grounder is a tactical fundamental in baseball. But the playing fundamental, the actual unit of the game is composed of a fielding combined with a throwing movement. These two types of muscular action do not naturally fuse together. They must be practiced together and the resultant skill is an actual part of baseball as it

Athletic Trainers Supply CO.

35 Howard St. New York, N. Y.

Anything your trainer's heart desires. **QUALITY AND SERVICE?**—ask the thousands of coaches who deal with Doc. **PRICES?**—Frank Wandle of the Army wants to know how we do it. Atsco unqualifiedly guarantees all its products. No secret formulae—you know what you are getting. Our **TENTH** year. Numerous imitators sprouting all over. Write for our catalogue.



ATSCOLITE, \$3.75

A great "buy." Staunch, durable, the equal of the best on the market. Get a few for the gym, one for your home. Excellent Xmas present. Buy it on my say-so.

"... money order for another of your excellent Atscolights..." Coach J. H. Smith, Plymouth, Mass.

Coach John Welser of Ohio bought 19 Atscolites in the past two months.

Coach Charles D. Tously:—"The Atscolite is a wonderful buy."

ATSCO ANKLE ROLLER BANDAGES

High grade webbing. Durable. Dozen.....\$1.25

ATSCO RUB-DOWN LINIMENT

Invigorating, refreshing, antiseptic, leaves body clean. Quart \$1.25 Gallon \$4.25

ATSCO HOT-STUFF LINIMENT

Hot-stuff, in full sense of the term. Best of oil ingredients. Quart \$1.50 Gallon \$5.00

THREE HEAT ELECTRIC PAD, \$4.50



Another great buy. Thermostat prevents overheating. Hundreds sold to profession.....\$4.50

ATSCO POWDERED RESIN—Prevents fumbling. Dozen cans.....\$2.50
ATSCO SKIN-HARDENING COMPOUND—Better than Benzoin. Favored by most schools. Pint \$1.00 Quart \$1.75
ATSCO RUBBING ALCOHOL—We guarantee the quality. Pint.....25c
ATSCO ANALGESIC BALM—"Till say it's Hot-stuff," writes Coach D. L. Holmes. 1/2 lb. 75c 1 lb. \$1.25

FOOT POWDER—Prevents friction. Dozen cans.....60c
TR. IODINE, U. S. P.—Pint.....\$1.00
MERCUROCHROME—Pint.....\$1.00
ATSCO-KAOLIN—Our antiphlogistic clay. Write for samples and prices. Vast saving.
GYM-ITH OINTMENT—1/2 lb.....75c
NEATS FOOT OIL—Gallon.....\$1.75

ATSCO ADHESIVES—write for catalogue

RED SPONGE RUBBER—Sheet.....\$3.00
GREY SPONGE RUBBER—Sheet.....\$2.25
SEA FOAM RUBBER—Sheet.....\$2.25
RUBBER SPONGE—By the lb.....75c

BANDAGE SCISSORS—Special sale of 5 1/4 inch bandage scissors.....75c
SURGICAL STEEL SCISSORS.....60c
BANDAGE ROLLING MACHINE.....\$1.75

A FEW OF THE BEST BOOKS FOR THE BASKETBALL AND TRACK SEASONS

BASKETBALL BIBLE—Allen, excellent.....\$4.00
BASKETBALL—Ruby, excellent.....\$3.75
BASKETBALL—Meanwell, excellent.....\$3.50
BASKETBALL FOR WOMEN—Frymire, new.....\$5.00
THE TRAINERS BIBLE—Best text on training and athletic injuries, by Dr. S. E. Billik, \$2.00
THE ART OF BOXING—By Philadelphia Jack O'Brien and Dr. Billik. Recommended by all critics as best book on boxing. Just out.....\$2.00

TRACK AND FIELD—Gill, great.....\$3.75

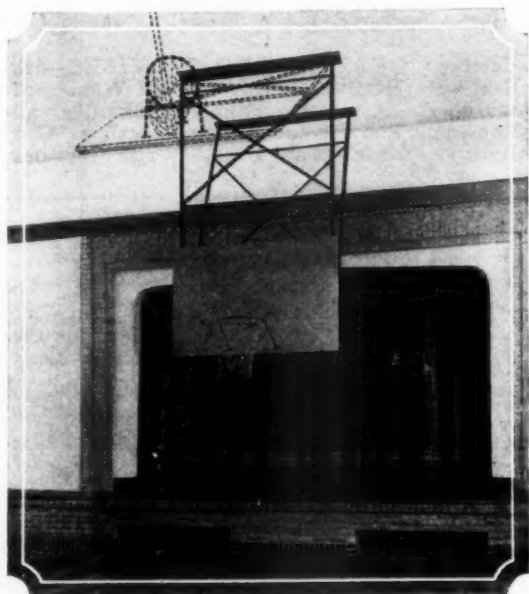
TRACK AND FIELD—Jones, excellent.....\$2.00

TRACK AND FIELD—Wegener, splendid.....\$2.00

Write for our catalogue

Have you a little Doc Bag in your school?

"Hoistaway" Backstops



"Hoistaway" basket ball backstops are the "Real Thing" for small gymnasiums, or gymnasium - auditoriums. They can be hoisted up out of the way when not in use.

For prices, folders, and full information, write to:

Playground & Gymnasium Equipment Co.

2902 Emerson Avenue South

Minneapolis

Minnesota

The Revolution in Basket Ball!

H. C. Carlson, M.D., Coach of the University of Pittsburgh basketball team, National Champions in 1928, has completed his book entitled "You and Basket Ball." The book is divided into two parts, giving the Spiritual Side of Athletics and the Technique of Basket Ball.

The formula for success is given in the first part of this wonderful book, and then applied to Basket Ball. Here he describes some of his psychology and understanding of human nature, which drove his team to a National Championship. In the second part of the book he traces the evolution of the game, gives fundamentals and various offenses including his own revolutionary offense.

Every coach, athletic director, college and high school boy should read this book. Fill out the form below and send for your copy today.

BROWN PUBLISHING COMPANY BRADDOCK, PENNA.

Enclosed find \$3.75 for which you will please send me my copy of "You and Basket Ball," by H. C. Carlson, M.D., University of Pittsburgh—Basket Ball Coach.

Name.....
Street.....
City.....State.....

is played. Fielding the ball and throwing it to a base, taken apart and practiced apart, do not make a good ball player.

The tackling dummy is probably the greatest offense against good judgment in the use of fundamentals. One must, of course, toughen muscles and strengthen the shoulders against shock and one *must* learn to leave one's feet when making a tackle; but these facts do not excuse a coach from the error of keeping his men at the tackling dummy under the belief that he is making good tacklers out of them. Tackling is a skill which must be learned *in conjunction with* an object that is running, twisting, squirming, attempting to straight-arm, etc. To tackle a runner successfully one must make good judgments as to rate of movement, relative distance, and the quickness with which a man may change his direction or pivot. Practice in making these judgments quickly and accurately must be built into the mechanical act of tackling before a man can ever hope to become a good tackler. Tackling a dummy never exercises judgments of this kind. They are exercised only during games or under practice conditions which are made to resemble game conditions.

Similar illustrations could be drawn from all of the sports but perhaps evidence enough has now been presented to show that the coach must be exceedingly careful in organizing his practice periods in fundamentals. The most progress will be made when the fundamentals are made as much like the game as possible. This fact lies behind the familiar statement that "the best way to learn to play a game is to play it."

But there is another sense in which we may use the phrase "psychological fundamentals." Let us go back to the short-stop who is about to field a fast ball on his right side. The man who was on first is now dashing to second. The short-stop must make a quick decision as to whether or not an attempt at a double play will be worth the effort. He cannot move his eyes from the ball he is about to field. He will not have time to catch the ball, look at second and then at first base, and make his choice as to where the play should go. His "mind must be made up,"—as the saying goes—even before the ball is actually in his hands. In other words, while he is still looking at the ball he must nevertheless *see* the runner nearing second base.

The same situation is presented to the man who is about to catch a punt. He dare not allow his eyes to waver from the ball as it comes toward him and yet he must know, *before* he

catches the ball, whether to run to the right, to the left, straight ahead, or whether to run at all. In other words, he must look at the ball but *see* the opposing ends charging down upon him.

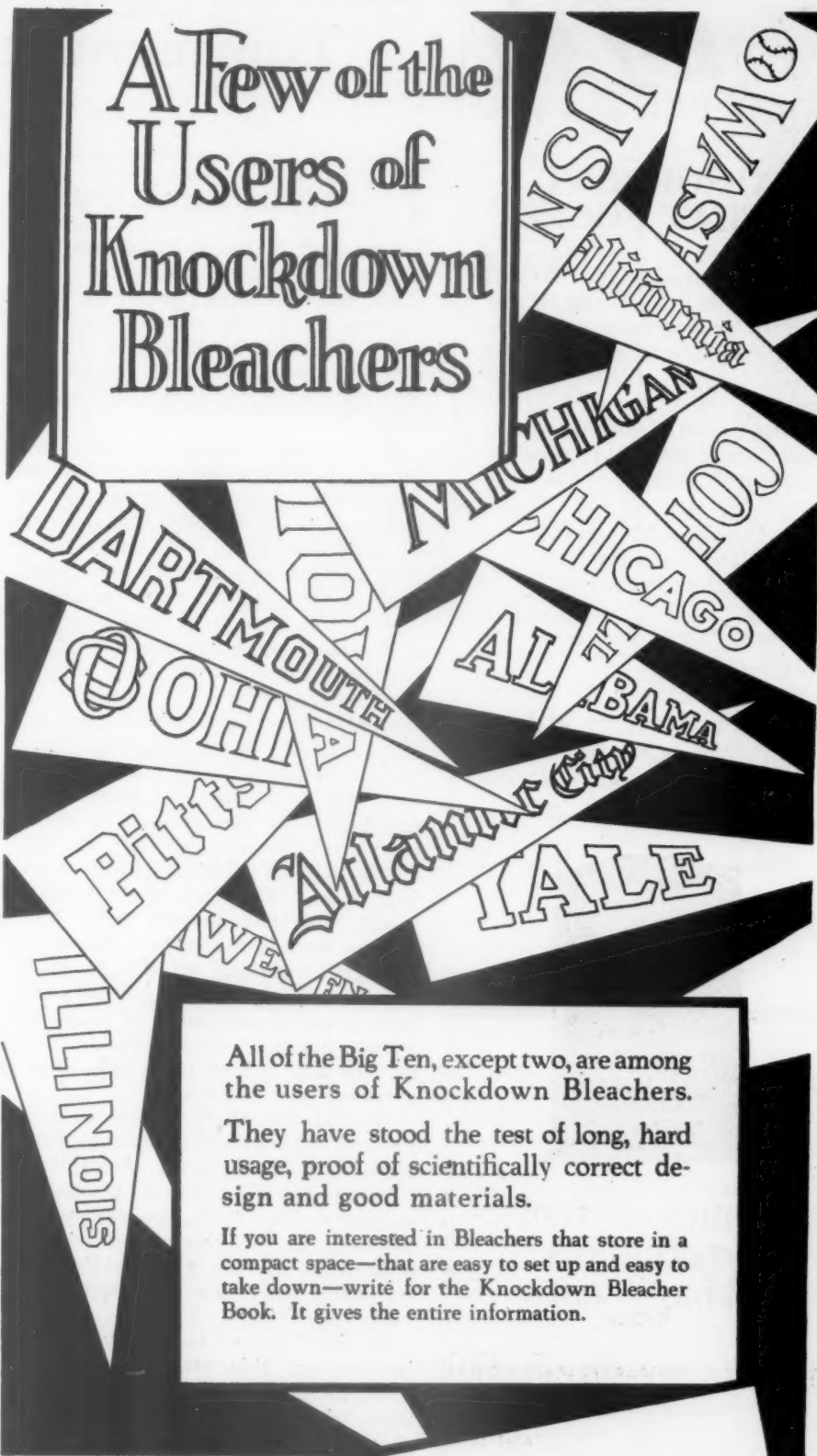
Consider a final illustration. A boxer never undertakes to follow any single movement of his opponent. He does not look, now at the right, now at the left glove of his opponent. He looks him steadily in the eye or steadily at his chin. He knows, nevertheless,—that is, he sees,—every move of his opponent. He is looking at one place, but *seeing* objects and events in other places.

These illustrations mean that an athlete must, more than anyone else, unless it be taxi-drivers, learn to use his whole retina. He must learn to react not only to what he sees directly but also to what he sees indirectly. He must learn to let his decisions be governed, in large part, by what he observes out of the corner of his eye.

In this manner, we come upon a new meaning in the phrase "psychological fundamental." Seeing is said to be psychological. To use only a part of the whole retina means that we are less skillful visually than we would be if we used the whole retina. The safety man who sees only what he is looking at must wait until after he catches the ball and turns his eyes on his opponents before he can decide how to run. By that time his opportunity to return the ball a few yards is lost. The basketball player who can see only the ball he is dribbling and who must, therefore, wait until the dribble is completed in order to shift his eyes from the ball to the position of his team-mates must stand second to the man who dribbles but who, at the same time, knows where he can throw the ball at any time it becomes necessary. The art of learning to use the whole retina comes in the same way that skill in throwing at the basket comes, viz., by practice. And such practice would be practice in a psychological fundamental of athletics, that is, practice in one of the skills that is uniquely a psychological skill.

There are, then, these two aspects of what we have called "psychological fundamentals." On the one hand, learning to play a game goes faster when psychological rather than tactical fundamentals are practiced. On the other hand, there are ways of learning to use our eyes and our hands and feet so that we can actually increase our skill in any given sport. A recognition of these two meanings of the phrase, "psychological fundamentals" will raise the coaching level of almost any man.

A Few of the Users of Knockdown Bleachers



All of the Big Ten, except two, are among the users of Knockdown Bleachers.

They have stood the test of long, hard usage, proof of scientifically correct design and good materials.

If you are interested in Bleachers that store in a compact space—that are easy to set up and easy to take down—write for the Knockdown Bleacher Book. It gives the entire information.

**Send
for
Free
Book**

LEAVITT MFG. CO.

Dept. D.
Urbana, Illinois

Please send me without obligation a copy of the Knockdown Bleacher Book.

Name _____

Address _____

Tru-fab
Bi-Spun Reg. in U. S. Pat. Off.

ABSORBENT SWEAT SOCKS

Our Tru-fab specially Treated Cotton Sweat Socks are recommended unreservedly—not only for the additional comfort they afford, but as a further protection against possible foot troubles. A trial will justify our recommendation and provide the team with the best sweat sock.

Durable—Absorbent
Elastic—Comfortable
Absolute Protection

Price \$3.00 per dozen for any length.

Climax Hosiery Mills
Athens, Georgia

New York Offices, 366 Broadway



TROPHIES - PLACQUES STATUETTES MEDALS - CUPS

by

**JOSTEN'S TREASURE-CRAFT
JEWELERS**

are

Distinctively Different

Ask for Samples

The Josten Manufacturing Company
Treasure-Craft Jewelers
FACTORY, OWATONNA, MINN.

Lessons from the Basketball Tournament of 1927-28

By George Keogan

INDIANA has been known for many years as a state which has produced many great basketball teams, both in her high schools and in her colleges and universities. The state has in many instances been referred to as "the cradle of basketball." We may attribute this to the fact that there is a keen interest in this great sport throughout the entire state.

If one were to take a trip by motor through Indiana, especially through the smaller cities and villages, one could not help noticing what I mean by keen interest. In almost every back yard may be seen an improvised backboard with basket attached. Around this crude affair one may note a dozen or more youngsters, busily engaged in learning the art of basket-shooting.

In this way these young bodies are trained and co-ordinated so that when they reach the high schools they have become proficient in many of the fine points of the game. It seems that every Indiana boy has the one desire to make his high school basketball team. Most all of our really great basketball players have been trained and have learned the game from childhood on up, for in order to become a great player, a man must have grace in movement of body and perfect muscular co-ordination. Most all coaches prefer the tall, loose, graceful type of player.

In Indiana there is a well organized and a well conducted State High School Athletic Association. This organization has a permanent secretary, Mr. A. L. Trester, whose business is the conducting of this organization. It is certainly well conducted, and has been copied by many other states.

At the finish of each regular playing season, this state organization conducts a series of elimination tournaments, which finally determine a state champion. The state is first divided into districts, and the district tournaments are held. Over a thousand high school teams played in the district tournaments last year. The winners of each district then enter the regional tournaments and the winners of these regionals, sixteen in all, are sent to Indianapolis to compete in the state tourney. This is held at the Butler University Field House, and is, I

believe, the greatest tourney of any kind held in America each year. It lasts for two days, and from this group of sixteen teams, comes the Indiana state champion.

A real spectacle, this state basketball tourney! There were three sessions each day, morning, afternoon and evening. The Butler Field House seats 15,000 people, and it was filled for each of the playing sessions last year. In other words, 45,000 people saw this tourney last March. They came by automobile, by interurban, and even by special train. It was not an uncommon sight to see a train consisting of several coaches, decorated with the colors of some participating school, pull into the station at Indianapolis, bringing, very likely, the greater percentage of the population of some small city or town. They all seemed to be there, from the mayor on down.

This great interest, not only among the players, but among the general populace, is what makes basketball a great sport in Indiana. Many of these smaller communities have gymnasiums which seat more people than they have inhabitants in the town. Still, at game time they are usually filled to capacity. With such support and interest in the game, is it any wonder why Indiana leads in basketball?

It was very interesting from a coach's viewpoint, to observe and study this state tourney, with its different types of play, both offensive and defensive. The Indiana high school teams are usually well coached groups. The schools take pride in their teams, and secure someone to coach who understands the game. They make coaching a primary requisite, instead of making it secondary to music, manual training, or what have you.

The type of play seen most at the Indiana state tourney was the fast breaking type of offense, which is typical of Indiana basketball. This type of play depends entirely on a fast break at the moment a team gets possession of the ball, the object being to catch the opposing team short-handed, or to catch the players before they can get any type of defense set. Of course, this type of play demands clever men to properly execute such an offensive. It is a very

"Bradley's a triple threat against cold weather."

—Gilbert L. Welch
Halfback
Pittsburgh '27



"Bradley on the label means a good sweater."

—Herb W. Joesting
Fullback
Minnesota '27



"My letter's going on a brand new Bradley."

—Tom A. Nash
End
Georgia '27



"No one may borrow my Bradley."

—Leo Roskowski
Tackle
Ohio State '27



"They don't come better than Bradley."

—C. K. Cagle
Halfback
Army '27

"Bradley runs rings around the rest."

—John H. Smith
Tackle
Pennsylvania '27



"Bradley is a corking good sweater."

—J. Dudley
Charlesworth
Center
Yale '27

They don't need "coaching" on this point!

These are the huskies of the All-American Football Team. And they all agree that the proper play—when buying a sweater—is to look for the Bradley label!

That holds for coaches, too—thousands of coaches all over the country who buy Bradley Sweat Shirts, Training Pants, Honor Sweaters and Athletic Equipment for college, school and athletic club teams.

Write, for a copy of the Bradley Athletic List, to Bradley Knitting Company, Delavan, Wisconsin.

Slip into a **Bradley** and out-of-doors

©1928



"My Bradley's my warmest friend."

—Russ Crane
Guard
Illinois '27

"Bradley means sweater perfection to me."

—Bennie
Oosterbaan
End
Michigan '27



"I always feel 'set' in a Bradley."

—Morley E. Drury
Quarterback
University of
So. Calif. '27



"I'm still wearing my first Bradley."

—John P. Smith
Guard
Notre Dame '27



Dixie Portable Bleachers

Safety and comfort are important factors to consider when ordering bleachers.

Dixie Portable Bleachers are built by expert mechanics who specialize only in the manufacture of the famous Dixie Portable Bleachers.

Dixie Portable Bleachers will solve your seating problem for all indoor or outdoor sports. They are safe and economical, and fully guaranteed.

All lumber used in the manufacture of Dixie Portable Bleachers is of Southern pine, which carries the highest tensile strength of all soft woods. Only malleable iron is used, and is shaped in our own forge shops to exact template.

Dixie Portable Bleachers in 5 to 15 tier sections are stocked in our warehouses ready to stencil to your seating specification without extra charge, and for immediate shipment.

High schools try our "Pay as You Play" plan. It may interest YOU.

Write for catalog, or mail us your inquiry.

Dixie Portable Bleacher Company
Meridian, Mississippi

SAND KNIT

COMPLETE LINE
FOR
ATHLETIC WEAR

—○—
HONOR SWEATERS
JERSEY JACKETS
BASKETBALL SHIRTS
FOOTBALL JERSEYS
WARM UP GARMENTS
SHIRTS - PANTS - COATS
BASKETBALL PANTS
JERSEY KNIT AND LEATHERSKIN
ATHLETIC HOSE
GIRLS KNIT MIDDIES
TRAINING SUITS
FOR WRESTLING AND BOXING
CHENILLE AND FELT
LETTERING

Made in Exact
College and School
COLORS

—○—
Special Department
for School Orders

WRITE FOR CATALOG
and School Price List

SAND KNITTING MILLS CO.

Manufacturers of
Exclusive Knit Goods for
Athletic Wear
1714-20 N. ROBEY STREET
CHICAGO, ILL.

fast passing and dribbling type of game, the feint and dribble being used a great deal as a sort of basic move. A team to employ this type of play with success must be exceptionally well drilled in the fundamentals of the game. It is a beautiful type of game to watch.

We also observed, in contrast to the fast breaking game, the slow methodical type of play. The passing was fast, but the movement very slow, the object being, to maintain possession of the ball as much as possible, and wait for someone to make a fast, clean break for the basket. The players did not seem so proficient at this type of play, the reason being, as I saw it, that they were not used to this style of play. When the defense was allowed to get set, they could not work through with any degree of success. The defensive play was one of the notable things about this year's tourney. It has always been more or less conspicuous by its absence until this year. Nearly every team had a well balanced offensive and defensive.

A few of the teams used the mechanical or set type of play. They had definite set plays, knew just where each pass was to go and the movement that followed each pass, the objective being either to open up a lane to the basket for someone to break into and score, or to break someone loose for a clean shot. The teams which used it worked it very well. Muncie, the team winning the tourney, used that type of play. The ball was passed in to a pivot man, who in turn would feed it to his team mates as they broke in to the basket, or crossed to create a second pivot point, from which the plays could be worked or a shot taken at the basket.

Much in contrast to the Indiana tourney, was the National Tourney held at the University of Chicago. No one type of play seemed to dominate here. Each team was evidently using the type of play most common to the community or locality from which it came.

The type of play that seemed most used at the National Tourney was the slow moving style. Possession of the ball seemed to be the main objective. Then too, teams used the delayed offensive a great deal. They would step out and secure the lead and then draw into the back court. The object seemed to be to draw the defense out, or to make them change from group guarding to the individual type of defense. Some of the teams worked this type of play very cleverly. In fact, the two finalists employed this type of play. It must have been successful, as it carried them both

through the tourney and to the final game. The Canton, Illinois, team worked this type of game very cleverly. A few of the teams worked the fast-breaking type of game.

Some of the teams which had a tall, rangy man used him as a pivot man and worked their plays around him. They placed him at the foul line, passed in to him, and he then fed his teammates as they broke into the basket. This is, more or less, the style used by many of the eastern professional teams. If the pivot man is active, this type of play will bring results.

Several of the teams employed the fast short-passing game. The team play in this style involves the whole five men in the offensive. With the use of this type, a team is taking more chances than with other styles of play, mainly because the players are all up the court and many times are caught short on the defensive. They depend on out-scoring their opponents, to carry them through.

It has often been said that the conservation of energy is the greatest asset to a team in basketball. I believe this to be very true. The team that can move along and win by expending a minimum of energy is a team that is going to do well in any tourney, or in the regular schedule as well. The slow moving type of play, with a team saving itself as much as possible, is the better type to use in tournament play. The team is going to be called on to play some games that are easy, and some that are very hard during the course of a tourney. It must expend energy during the hard contests, but it should conserve during the easier games. A smart team can conserve energy and be successful in any contest, whether it be hard or easy. Such a team is hard to defeat.

To conserve energy, therefore, is one of the greatest factors in the success of any team and one of the hardest things to teach and get young players to carry out. This applies to college and university teams, as well as to those of the high schools. It is purely a matter of the individual player's being responsible for conserving his own energy. A smart player will do this. Thus, if the units which make up the team conserve, naturally, the team as a whole conserves. Then when a final burst of speed is necessary, they have it to give. This is very true, as is shown as the games move on from day to day in tournament play. It is wearing and bound to tell to some extent on the players. The team which keeps itself fit, and, that does not expend energy foolishly, usually

**YOUR STARS CAN'T
WIN THAT GAME
— if —
THEY'RE SITTING ON
THE BENCH**

~ ~
**Sprains—Bruises—Neuritis
Charley Horse—Inflammation**

**May Lose Games for You
Unless Relieved by**



THE OVERLAND THERAPEUTIC ELECTRIC BAKER

Wide range and flexibility of heat are provided by the three-heat control.

NOW IN USE AT

University of Illinois
University of Iowa
University of Michigan
University of Minnesota
Ohio State University
and many other leading
universities and colleges.

The tendency to burn is eliminated by special heating units, and heat of high degree can be safely applied.

Equipped with two covers, the baker may be used for application to leg, knee, hand, arm, shoulder, chest, back, or side of the body.

Write for Literature

OVERLAND ELECTRIC CO.

2410 Ogden Avenue, Chicago, Illinois

comes through. By this statement, I refer to running around the court aimlessly, poorly timed breaking, or running the court in a man to man defense. One might apply the old saying, "Use your head and save your feet."

Many tournament teams are worn out in preparation for the tourney. That is, instead of resting his men, the coach works them doubly hard and they get to the tourney pretty well worn out. The last two weeks is no time to be teaching basketball; that is the time to be conserving all the energy possible. By that time the team has absorbed about all the basketball it can for the year. The teaching should be done early and during the playing season, and not the week before the tourney.

The coach is the man responsible when a team does not conserve energy. He cannot hold any one else to blame. Young players become so interested in the game that many times they forget. They need some sort of balance wheel to keep them steadied down. Many times a coach is fortunate in having such a man on the squad, but if not, the coach must supply that balance and coolness.

We have all seen and noticed what we call great first-half teams, the teams that look wonderful in the first twenty minutes, only to come out and gradually lose the contest in the second twenty minutes. There is a reason for this. It is either because the type of offensive employed demands the expenditure of too much energy, or because the players have not learned to judge the pace they can set and keep going. They are much like the boxer who fights like a whirlwind the first five rounds, only to lose to a cool, calm, collected boxer in the last five rounds. Boxers call this ring generalship, but the same generalship applies to basketball. A player must to a great extent know himself and his physical possibilities. This can be attained by a study of one's self, both mentally and physically. A group of players who know themselves and their physical capabilities, and govern their playing accordingly, are always going to be a hard team to beat. This is especially true during tourney play.

Mr. Eugene G. Oberst, former tackle and Olympic javelin thrower at Notre Dame (1923), has joined the coaching staff at De Pauw University, Greencastle, Ind. He replaces Mr. Todd Kirk. Oberst will coach the line in football and is head coach in baseball. He will also assist with the regular physical education classes.

**The Football Squad of a Leading Eastern University
—Used Fourteen Gross of ACE BANDAGES
in one season!**

The trainer of this team knew that proper *protection* would keep the highest percentage of good men in the game throughout a strenuous season. His men went into every game well strapped with Ace Bandages.

He knew that Ace Bandages—elastic without rubber—give maximum protection without binding or drawing. He knew that the porous weave of these all-cotton bandages insure coolness and comfort and that they can be boiled without losing their elasticity. He knew that Ace Bandages never slow up a man.

Not all of these bandages were used for prevention. Many were used in treating more serious muscular and tendon injuries. Ace Bandages give immediate relief and comfort. They help to reduce swellings by pressure and passive massage.

A generous supply of Ace Bandages is as necessary to a football squad as a supply of headguards.

*Order a supply from your local sporting goods
dealer or druggist NOW!*

BECTON, DICKINSON & CO., Rutherford, New Jersey

THE REAL BIG HIT OF THE SEASON DETROIT ATLAS PORTABLE BLEACHER SEATS SUPERIOR—DISTINCTIVE DESIGN

The points of chief importance to consider in purchasing portable bleacher seats are:—

SAFETY - LONG LIFE - COMFORT

**FREEDOM FROM FREQUENT
REPAIRS AND REPLACEMENTS.**

LOWEST AVERAGE COST PER YEAR.

**SPEED AND EASE OF ERECTING —
DISMANTLING AND TRANSPORTING.**

OCCUPYING LEAST SPACE IN STORAGE.

MOST ATTRACTIVE IN APPEARANCE

**THE COMBINATION OF ALL THE
ABOVE VITAL POINTS IS EXCLUSIVE
WITH THE DETROIT ATLAS.**

Send for Booklet



EVERY SECTION AN INDEPENDENT UNIT WITH 4-STRINGERS.
STEEL AND MALLEABLE CASTINGS CARRY EVERY STRAIN.

**DETROIT ATLAS PORTABLE
BLEACHER SEAT CO.**

520 FREE PRESS BLDG.

DETROIT, MICH.

**PACIFIC COAST BRANCH
H. C. MOWER CO.**

210 N. Los Angeles St.
Los Angeles, Cal.

Have YOU Seen **PRACTICAL FOOTBALL** And How to Teach It?

By G. S. Lowman, Professor of Physical Education, University of Wisconsin.

Fully Illustrated with diagrams and photographic reproductions. Price.....\$4.00

Mr. Lowman's experience as a football coach, together with his experience as a scout in the Western Conference for the past ten years, is sufficient evidence that this book covers the latest and most complete methods in coaching.

THE CONTENTS

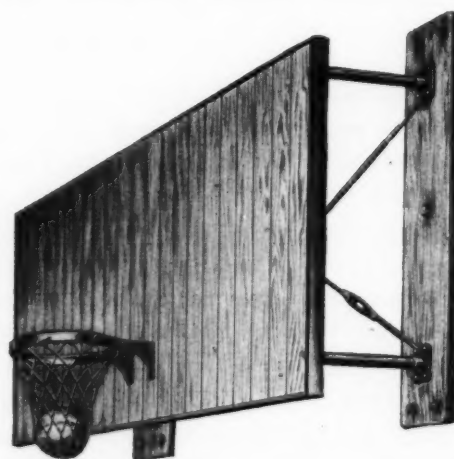
Training and Conditioning	Football Offense
Equipment	Football Defense
Fundamentals	The Forward Pass
Passing the Ball	Individual Positions
Kicking	Team Play
Forward Pass Technique	Field Tactics and Strategy
Backfield Fundamentals	Treatment of Injuries
Line Fundamentals	Scouting

Send for illustrated 72 page catalogue with Table of Contents of books on Athletics, Games, Folk Dances, etc.

**A. S. Barnes and Company
Publishers**

67 West 44th Street New York

MEDART BASKET BALL BACKSTOPS



Your team will play a better game if you equip your court with Medart basket ball backstops—for in Medart basket ball backstops you get a heavily constructed, well braced, rigid and smooth surfaced backstop—so essential to a satisfactory game.

All Medart backstops are regulation in size and in finish.

Write for our backstop circular A-6, which illustrates both wood and glass backstops—swing-up, stage, portable and adjustable varieties.

FRED MEDART MANUFACTURING CO.

3564 De Kalb Street
ST. LOUIS, MISSOURI

Fundamentals of the Offense

(Continued from page 15)

side, while the offense can get off-side, hold, start before the ball is snapped, and commit many other ineligible things in a march of this distance. Besides taking all these risks, the offensive team is showing its favorite plays, which are diagnosed by the time it approaches the defensive team's goal line. It is also a very tired and bruised team. Remember it is much harder to play offensive football than it is to play defensive football. Many times I have seen a football team win a game against a team that has gained twice as much ground by rushing the ball, by superior kicking and by taking advantage of the mistakes made by the team that has resorted to this hazardous style of play to gain its yardage.

Good kicking may be accomplished only by constant practice, and is worth more than any half dozen ordinarily developed offensive plays. Good kicking is not only a good defensive major, but serves to help materially the offensive by the ground gained on exchange of kicks.

It is strange how little time is given by many coaches in training their team to cover kick-offs and to return kick-offs. This is truly an offensive measure that is very important in a game that will be closely contested. Naturally we do not use this play so often as our basic work. When we kick off it is important to down the man returning the kick-off as close to his goal line as possible. On the other hand the team receiving may win the game by bringing the kick-off out to the zone of the field where the quarter-back can use his assortment of plays without fear.

It surely is a very great advantage to down the defensive man as close to his own goal line as possible. The quarter-back is then limited and the defensive team can form a stronger defense for the rushing attack. If the kicker is rushed well, it usually results in a short kick which will give the team that kicked-off the ball near the middle of the field, and gives their quarter-back the same advantage that running a kick-off back to mid-field would give him.

A kick-off man should have a certain amount of training every day in kicking off so that he will be able to kick the ball high and accurately. It is often a very wise idea to lay the kick-off close to the side lines in the corner, which will prevent a receiving side from forming effective interference and running it back.

The placing of the men in building

THE VIBRATONE

Doctor Holm's
Swedish Massage
and Exercise
Machine



USED BY ATHLETES IN EVERY FIELD

Will Keep your Team in Trim and will Recondition Incapacitated Players Better and Faster than any other Machine.

Jack Dempsey used the Vibratone during his training for his last contest with Gene Tunney.

SWEDISH MASSAGE and MOTION, properly applied, relieves SPRAINS, "CHARLEY-HORSE," BRUISES, STRAINED LIGAMENTS, LAMENESS and STIFFNESS.



THE VIBRATONE, devised and perfected by Dr. J. H. Holm, is the nearest to SWEDISH MASSAGE and MOTION in form ever produced mechanically, and will furnish the solution to your injury problems.

By the VIBRATONE'S ROTATING and RECIPROCATING MOTIONS, massage can be given to any part of the body with the various applicators, relieving lameness, stiffness and muscle bound condition immediately.

THE VIBRATONE induces perfect circulation, keeps the muscles toned, limbers the joints, and reduces congestion. These very essentials will keep your athletes from going stale.

Manufactured by

HOLM'S MANUFACTURING CO.
Kenosha, Wisconsin

Sold by

F. C. Hermann & Co.

Room 1406, Marshall Field Annex Bldg.
25 East Washington St., Chicago, Ill.

Free Demonstrations given

Basketball Books for Coaches

Basketball, Dr. H. C. Carlson, Pittsburgh (new)	\$3.75
DeLuxe Loose Leaf Basketball Score Book	1.00
My Basketball Bible, Dr. F. C. Allen	4.00
Basketball, Ruby, Illinois	3.75
Science of Basketball, Dr. Meanwell, Wisconsin	3.50
Basketball, Barry, Iowa	3.00
Basketball, Wardlow, Columbia	2.00
Basketball, Levis, Wisconsin	2.00
Basketball for Women, Frost	2.00
Basketball Officiating, Nichols	1.50
Scientific Basketball, Holman	.60
Basketball for Women, Frymir	2.00
Psychology of Coaching, Griffith	2.00

THE ATHLETIC SUPPLY CO., Inc.

Menomonie, Wis.



Quick Action

on the part of a hot Antiphlogistine dressing, when applied to that inflamed or painful area, means keeping every man in the regular line-up. The relaxant, analgesic and reconstructive properties of this "standard" poultice and dressing have made it indispensable to coaches and trainers, particularly during the football season, when athletic injuries are an every-day occurrence.

Every athletic coach and trainer should have a copy of our booklet: "Athletic Injuries and Their Treatment," mailed gratis upon request.

Antiphlogistine

THE DENVER CHEMICAL MFG. CO. — NEW YORK

WRESTLING AND GYM MATS MAT COVERS

In 1881—just 47 years ago—we began to make mats. We have developed with the years and kept up with the times so that today we make the cheapest mats consistent with a dependable standard of workmanship and first grade materials.

Write for details

THE ZITELMAN-REED MFG. CO.
Iowa City, Iowa

an offensive team affords many different ideas and they are all probably good. One coach is sold on one type, one on another, and that is what gives the game its variety.

We can, however, boil it down after all into several possibilities. The line may be balanced, four and two, five and one, or all on one side of center. We may have ten men on the line and one in the backfield. The backfield is either balanced or unbalanced. Therefore, with the line and backfield we may make many combinations, but it really comes down to balanced or unbalanced formations, and the point for the defense, of course, is to find the apex of the offensive strength in any formation.

The different apexes of offensive strength naturally give each formation an advantage. As an example, with the balanced line and unbalanced back you get a better flank run and you have more short side strength. On the other hand, with a four and two line and unbalanced back you have power in the strong side, but less short side strength, and it is harder to get a good wide end run. To this I will add that when two wing-backs are used you have the reverse play, which gives you a good flank play.

Warner's system of using a four and two line with two wing-backs and the full-back handling the ball for reverses is really the same idea as quarter under center and your split bucks or delayed plays into the line. The spinner play has the same action as the split buck.

Warner Formation

```

XXOXXXX
  X       X   X
HB       QB   HB
      X
      FB
  
```

Formation has good threat for flank and center line with spinner. Fair power, short side stronger than Andy Smith's.

Army Formation—Good End Run and Threat to Both Sides

```

X-XXOXX-X
              X
  
```

```

  X  X
    X
  
```

Andy Smith's Formation — Good power, short side not strong. Not good wide end run.

```

XXOXXXX
      X   X
    X  X
  
```

How to Handle a Team the Day of a Big Game

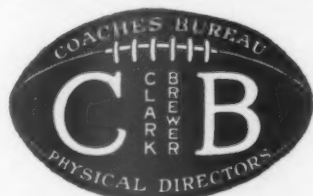
(Continued from page 5)

enough to make this indispensable. When I contrast the difference be-

tween teams treated like this and those subjected to the indescribable tumult and shouting of my own playing days, I wonder how anybody could have failed to draw the inference for himself, and yet I still see case after case of the old-fashioned methods case of the old-fashioned methods.

I know that some men have experimented with the alternative of keeping the team on the field between the halves, and, although this has the one advantage of making sure that they are not breathing bad air, I think it never pays. The players will inevitably stiffen up. They hear and see too much, besides, and there is no doubt that they miss the rest and relaxation which only privacy and quiet will allow.

There used to be a general idea that a losing team could be miraculously heartened by a scientific tongue-lashing on the part of the coach or of some specially selected artist in invective during this rest interval. I have seen it work myself, but on more occasions I have seen it fail, and for my part I prefer not to use the device on general principles. After all, an atmosphere of quiet, business-like directness is more effective with most men, and they profit best from the confidence and liking inspired by a competent critic and leader. I dislike, on principle, all forms of artificial stimulant, from oratory to coffee, and it seems to me that the game ought to be played by mind and muscle and heart rather than by unnatural spurring of any sort. The best teams I have seen have uniformly been those which were cool and clear-headed, without being the less animated by the fine passion of the game. The charge of a merely maddened fanatic is a mean thing to stop, in war or anywhere else, but the man who stops it is nearly always the one who keeps the red blur of emotion from distorting his vision, who can fight as hard as the dervish but does not let go of his wits to do it.



Only bureau in U. S. exclusively for coaches and under the personal management of an active college coach. Vacancies up to \$8,500. Details and professional personnel form upon request.

Floyd L. Brown, Mgr.
Lyon & Healy Bldg., Chicago, Ill.

A SUPERIOR GRANDSTAND Built Entirely of Steel

An all-steel grandstand gives an assurance of absolute safety. Steel will not burn, or deteriorate under the the action of the weather.

The Pittsburgh-Des Moines all-steel grandstand provides—

A MAXIMUM SEATING CAPACITY

for any available area

AT A MINIMUM COST

This steel grandstand is an absolutely permanent structure. It is constructed of heavy steel interlocking plates formed into steps and resting on structural steel stringers and columns. The only upkeep is an occasional coat of paint.

Ask us about the many advantages that an all-steel grandstand has over the concrete stadium.

Pittsburgh-Des Moines Steel Company

49 Neville Island
Pittsburgh, Pa.

Chicago

653 Hudson Terminal Bldg.
New York City

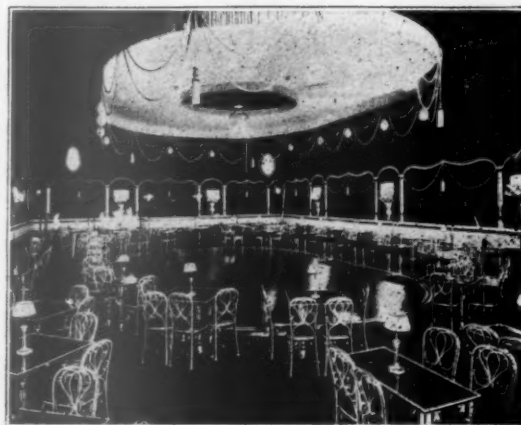
San Francisco

951 Tuttle St.
Des Moines, Ia.

Seattle

EVEN THE COACH

is entitled to
his recreation



AFTER A HARD GAME OR A STRENUOUS SEASON, an evening of dancing in the unusual atmosphere of

The Balloon Room of the Congress Hotel

will give the coach the relaxation he needs.

HERE HE WILL FIND a rare treat in the distinctive beauty of the BALLOON ROOM, which has established a national reputation as one of the gayest night clubs frequented by university people. And the incomparable music is by

JOHNNY HAMP'S KENTUCKY SERENADERS

AFTER THE SEASON IS OVER, a banquet for the team in one of the private dining rooms of The Congress Hotel will make this a year never to be forgotten.

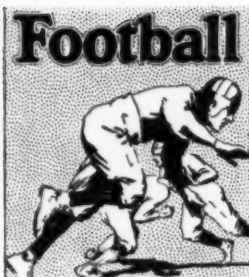
Coaches whose teams are playing in Chicago, or passing through the city, should investigate the advantages of Chicago's Most Distinguished Hotel. Special attention will be given to the meals served your teams—and a meal at The Congress has no equal, whether for the athlete or for the hungry football fan.

On Boulevard Michigan facing Grant Park

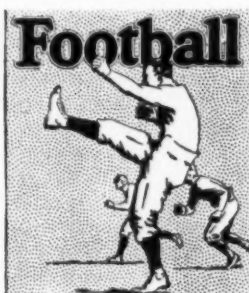
CONGRESS HOTEL & ANNEX

Chicago's Most Distinguished Hotel

Make This Season a Success You Can Do It With These Posters



No. 2. Red and Black



No. 4. Orange and Black, or Orange and Navy

How to Order

Our posters are furnished in lots of one hundred to one thousand or more, in any combinations of designs that you may select. For example, you estimate that you will need four hundred posters for your season's requirements. You may divide your order evenly among the entire series, or you may order a larger quantity of one number than another. Order posters by name, number and color. For instance: 100 football No. 2, Red and Black; 100 football No. 4, Orange and Black; 100 football No. 8, Yellow and Black or Gold and Black; 100 football No. 12, Purple and Gold or Lavender and Black.

To eliminate extra bookkeeping and correspondence costs we conduct our business on a cash basis. We therefore respectfully request that you send check with order or make your order read C.O.D.

We guarantee to make shipment immediately upon receipt of your order. If you are in a hurry, telegraph your order and we will give it special attention.

Football



No. 10. Printed in Green and Black or Gold and Navy



No. 12. Printed in Lavender and Black or Purple and Gold

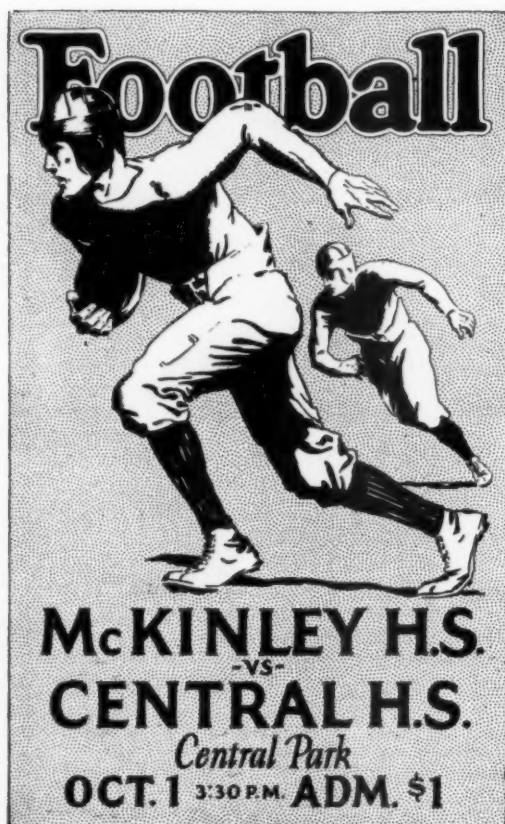
Price List

100 Posters . .	\$ 9.50
200 Posters . .	19.00
300 Posters . .	28.00
400 Posters . .	37.00
500 Posters . .	46.50
600 Posters . .	54.00
800 Posters . .	71.00
1000 Posters . .	89.00

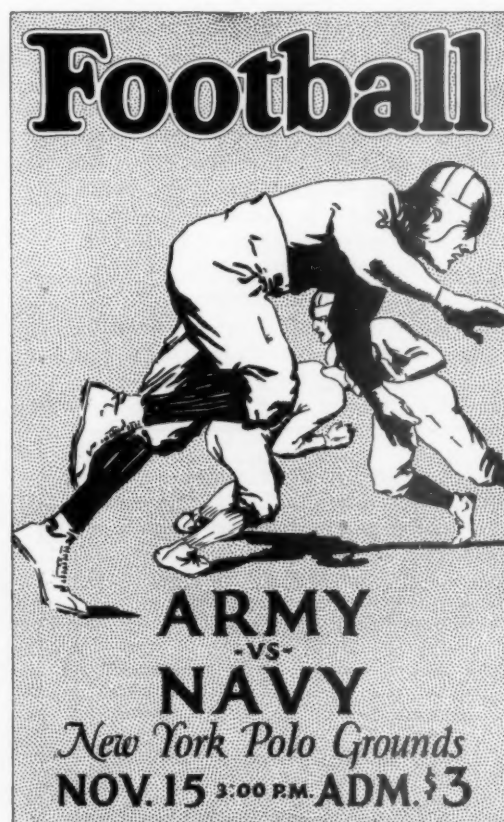
All Prices
F. O. B. Chicago

We will ship on open account—payable in the usual thirty days if you so request — provided the order is signed by an official.

Posters Printed on 4-Ply
Cardboard
Size 14"x22"



No. 6. Printed in Silver Gray and Cardinal or Blue and Black



No. 8. Printed in Yellow and Black or Gold and Black

Football



ORDER YOUR FOOTBALL POSTERS
BY NUMBERS FROM OPPOSITE PAGE

Athletic Journal Poster Company

Address, 6858 Glenwood Ave., Chicago, Illinois

FILL
THE
SEATS
WITH
THESE
BIG

P
O
S
T
E
R
S

THE O'SHEA HONOR SWEATER

We specialize in
making Honor
sweaters for
schools.



Furnished in all
standard school
colors.



Special *ten-day*
delivery.

Chenille or Felt
letters or em-
blems.



O'SHEA KNITTING MILLS

Athletic Knitted Wear for Every Sport

2414-24 North Sacramento Avenue

CHICAGO